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# 1982

## Census of Mineral Industries

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MIC82-A-3

GEOGRAPHIC AREA SERIES

### East North Central States

Illinois, Indiana, Michigan, Ohio, Wisconsin

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The publications  
from the 1982 Economic and  
Agriculture Censuses are dedicated  
to the memory of Shirley Kallek,  
Associate Director for Economic Fields.  
During her career at the Bureau of the  
Census (1955 to 1983), she continually  
directed efforts to improve  
the timeliness and accuracy of  
economic statistics.

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# **1982**

# **Census of Mineral Industries**

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## **East North Central States**

Illinois, Indiana, Michigan, Ohio, Wisconsin

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Issued April 1985



**U.S. Department of Commerce**  
**Malcolm Baldrige**, Secretary  
**Clarence J. Brown**, Deputy Secretary  
**Sidney Jones**, Under Secretary for  
Economic Affairs

**BUREAU OF THE CENSUS**  
**John G. Keane**,  
Director

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Gaylord E. Worden, Chief

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# East North Central States

## CONTENTS

---

	Page
Introduction .....	IV
Users' Guide for Locating Statistics in This Report by Table Number .....	VIII

---

### STATES

Illinois .....	ILL.-1
Indiana .....	IND.-1
Michigan .....	MICH.-1
Ohio .....	OHIO-1
Wisconsin .....	WIS.-1

---

### APPENDIXES

A. Explanation of Terms .....	A-1
B. Geographic Divisions and States .....	B-1

---

Publication Program .....	Inside back cover
---------------------------	-------------------

# INTRODUCTION

	Page
ECONOMIC CENSUSES OVER TIME .....	IV
USES OF THE ECONOMIC CENSUSES .....	IV
AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES ..	V
CENSUS OF MINERAL INDUSTRIES .....	V
General .....	V
Scope of Census and Definition of Mineral Industries .....	V
Establishment Basis of Reporting .....	VI
Use of Administrative Records .....	VI
Auxiliaries .....	VI
Industry Classification of Establishments .....	VI
CENSUS DISCLOSURE RULES .....	VII
MICROFICHE .....	VII
SPECIAL TABULATIONS .....	VII
ABBREVIATIONS AND SYMBOLS .....	VII

## ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930, and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications<sup>1</sup> (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and the agriculture census were conducted concurrently.

## USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.



State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

## **AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES**

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

## **CENSUS OF MINERAL INDUSTRIES**

### **General**

The 1982 Census of Mineral Industries is the 19th census of mining establishments in the United States. For 1982, it was conducted jointly with the censuses of manufactures, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses.

This report, from the 1982 Census of Mineral Industries, is one of a series of 9 geographic division reports, each of which provides statistics for individual states within a defined geographic area. Additional separate reports are issued for individual industries or groups of related industries and on special subjects, such as size of establishments, type of organization, assets, capital expenditures, type of operation, and fuels and electric energy consumed.

These separate reports subsequently will be issued as portions of the final census volume. The volume—Subject, Industry, and Area Statistics—will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments and receipts, capital expenditures, value added by mining, selected supplies consumed, and energy used. It will include, besides the industry statistics, geographic area statistics (number of establishments, employment, payrolls, value added, cost of supplies, value of shipments and receipts, and capital expenditures) for each State and county, by industry group and

statistics on selected subjects. The introduction to the final volume of the census of mineral industries will discuss; at greater length, many of the subjects described in this introduction. For example, the volume text will discuss the economic significance of the mining sector, the relation of value added by mining to value added by manufacture, some of the changes in statistical concepts over the history of the census, and the valuation problems arising from intracompany transfers between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

## **Scope of Census and Definition of Mineral Industries**

The 1982 Census of Mineral Industries covers all establishments with one paid employee or more primarily engaged in mining as defined in the 1972 Standard Industrial Classification (SIC) Manual.<sup>1</sup> This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This system of classification is in general use among government agencies as well as organizations outside the government.

The SIC manual defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids such as coal and ores, liquids such as crude petroleum, and gases such as natural gas. The term “mining” is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.) and other preparation needed to make minerals marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the exploration and development of mineral properties are classified separately but within this division.

Mining operations are classified by industry on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) also are excluded.

Mining operations carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on such mining activities have been obtained in the 1982 Census of Manufactures and are included in the mining reports. They are clearly specified wherever included.

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<sup>1</sup>Standard Industrial Classification Manual; 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.



## Establishment Basis of Reporting

The census of mineral industries covers each mining establishment of firms with one paid employee or more operating in the United States. A firm operating more than one establishment is required to file a separate report for each location. A mineral establishment is defined as a single physical location where mineral operations are conducted.

For oil and gas field operations and for contract services, the basis for reporting is different from the "establishment" basis used for other types of mining. Firms operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each State or off-shore area adjacent to a State in which it conducted such activities and to include employment, production, and capital expenditures data at the county level. Firms that performed contract services for oil and gas field operations or for mining establishments were required to submit one report covering all such activities in the United States and to include information on receipts for services by State and county. These consolidated reports were then allocated to county establishments based on the data reported at the county level. The 1982 figures for establishments include the summation of operations within each county allocated from these State or nationwide reports and, therefore, are not comparable to prior censuses.

Establishments, as presented in this report, are those in operation "during the year." In the General Summary report (MIC82-S-1), a comparison will be made at the U.S. level of the number of establishments in operation "during the year" and at the "end of the year."

## Use of Administrative Records

From a mailout universe of about 36,000 mining establishments, approximately 11,000 small single-establishment companies were not mailed a questionnaire. For these establishments, some employment, payroll, and receipts data were obtained from the administrative records of other agencies. Selection of the small establishment nonmail cases was done on an industry-by-industry basis, and a variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. This information was then used in conjunction with industry averages and other information to estimate the statistics for administrative-record and nonresponse establishments. The first column in tables 2a and 5 provides an indication of the extent that these establishments account for the figures shown. The value of shipments and receipts and cost of supplies were generally not distributed among specific products and supplies for these establishments, but were included in the product and supply "not specified by kind" categories. Overall, establishments for which administrative-record data were used accounted for less than 2 percent of total value of shipments and receipts.

The industry classification codes included in the administrative-record files were used for those establishments excused from filing census forms. Generally, these codes were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete, or where there are relatively fine lines of demarcation among industries or between mining and nonmining activities, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product or activity information. Therefore, the total establishment count should be

viewed as an approximate measure. The counts for establishments with 20 employees or more are far more reliable.

In the 1982 census, as in the 1977, 1972, and 1967 censuses, data for single-unit firms without paid employees were excluded. This exclusion had only a slight effect on industry aggregates for most industries. Data for firms without employees were included in the 1963, 1958, and 1954 censuses if they reported more than \$500 in (1) value of shipments and receipts, (2) cost of supplies and purchased machinery, or (3) capital expenditures.

## Auxiliaries

Statistics for employment and payroll for individual industries and industry groups also include employment and payroll figures for administrative offices, warehouses, storage facilities, and other auxiliary establishments servicing mining establishments. As in previous censuses, respondents were asked to file separate reports (Form ES-9200) for any separately operated auxiliary establishments. Classification of employment and payroll data at such auxiliary establishments was based on the mining establishments served.

## Industry Classification of Establishments

Each of the establishments covered by the census was classified in one of 42 mineral industries in accordance with the industry definitions in the SIC system. Under this system of classification, an industry is generally defined as a group of establishments producing the same main product or closely related group of products. The resulting group of establishments must be significant in terms of its number, value added by mining, value of shipments and receipts, and number of employees. Application of these criteria led to formulation of 42 mining industries, to each of which a four-digit code number was assigned. The classification system also provides broader groups of industries, with twenty three-digit groups and five two-digit groups. Within industries, the system provides for seven-digit products and five-digit product classes. Products are considered primary to an industry if the first four digits of the product codes are the same as the industry code. Products whose first four code numbers differ from the industry code are called secondary products. To determine the industry classification of an establishment, the seven-digit products are grouped together according to the first four digits of the product code. The first four digits of the group of products with the largest value of production become the industry code for the establishment. (For mineral service industries, the classification is on the basis of receipts for services performed.)

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Whenever possible, separate figures are shown for establishments with mines only, mines with preparation plants, and preparation plants only. Separate figures are provided by type of mine (underground, open pit, and combination). Separate statistics also are provided on producing and nonproducing operations, an establishment being defined as nonproducing if no mineral products were shipped during the year.

Statistics also are usually provided on the production of minerals mined and used in the same establishment for producing prepared minerals or used at the producing establishment for fuel.



Differences in the integration of production processes and types of operation should be considered when relating the general items (employment, payrolls, value added, etc.) to the product and material data.

## CENSUS DISCLOSURE RULES

The Bureau of the Census is prohibited by Federal law from publishing any statistics that disclose information reported by individual companies. However, the number of companies classified in a specific industry is not considered a disclosure, so this item may be given even though other information is withheld.

The disclosure analysis for the State statistics in the tables of this report is based on the total value of shipments and receipts and capital expenditures. Whenever the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line has been suppressed. If capital expenditures alone is a disclosure, only total capital expenditures and cost of supplies statistics are suppressed. However, the suppressed data are included in higher level totals.

## MICROFICHE

All data in the final reports and volume are available on microfiche. Microfiche reports are sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

## SPECIAL TABULATIONS

Public-use tapes are not available for 1982 Census of Mineral Industries data. However, special tabulations of data collected may be obtained on computer tape or in tabular form. The data

will be in summary form and subject to the same rules prohibiting disclosure of confidential information (such as name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications. Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, D.C. 20233.

## ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

—	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies.
(NA)	Not available.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, and bbl, are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "l. tons."

# Users' Guide for Locating Statistics in This Report by Table Number

[For explanation of terms, see appendix]

Item	State historical	State by industry	State by industry group and type of operation	State summary	State by county and industry group	State by county and establishment size
Establishments:						
Total number . . . . .	1	2a,2b	3	4a	5	6
Employment size . . . . .				4a		6
Employment and payroll:						
Number of employees . . . . .	1	2a	3	4a	5	
Payroll . . . . .	1	2a		4a	5	
Production, development, and exploration—						
Workers . . . . .	1	2a		4a	5	
Hours . . . . .	1	2a,2b		4a	5	
Wages . . . . .	1	2a,2b		4a	5	
Supplemental labor costs . . . . .				4a		
Value added, cost of supplies, shipments, and inventories:						
Value added by mining . . . . .	1	2a	3	4a	5	
Cost of supplies . . . . .	1	2a,2b		4a	5	
Resales, cost and value . . . . .				4a		
Purchased fuels consumed . . . . .				4a		
Purchased electricity . . . . .				4a		
Cost of contract work . . . . .				4a		
Value of shipments and receipts . . . . .	1	2a		4a	5	
Inventories . . . . .				4b		
New and used capital expenditures, excluding land and rights:						
Total . . . . .	1	2a		4a	5	
Buildings and structures . . . . .				4a		
Machinery and equipment . . . . .				4a		
Mineral exploration and development . . . . .				4a		
Rental payments . . . . .				4a		
Expensed mineral exploration, development, land, and rights . . . . .				4a		

# Illinois

## CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

---

	Page
Summary of Findings .....	2

---

### TABLES

#### HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years .....	3
---	---

#### STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977 .....	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982 .....	4
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982 .....	4
4a. Summary Statistics for the State: 1982 .....	6
4b. Inventories for the State: End of 1981 and 1982 .....	7

#### COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977 .....	7
--	---

#### EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982 .....	12
---	----

# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 1,682 establishments classified in mineral industries in Illinois amounted to \$3,608 million in 1982, or 1 percent of the Nation's total. This compares to \$1,535 million in 1977 when it was 2 percent of the Nation's total. Value added by mining amounted to \$2,544 million in 1982, and payroll in mining amounted to \$845 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels.

When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Illinois was 31.3 thousand in 1982 or 3 percent of the Nation's total. This is an increase of 21 percent over 1977. The bituminous coal and lignite mining industry led all other mineral industries in the State, accounting for 61 percent of the State's mineral industries employment.



**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> .....	<sup>2</sup> 1 682	<sup>2</sup> 199	31.3	845.1	23.1	46.2	596.4	2 543.9	1 576.6	3 607.8	512.7
1977 <sup>1</sup> .....	879	187	25.8	451.6	20.9	40.9	349.1	1 162.7	666.2	1 535.1	293.8
1972 <sup>1</sup> .....	864	178	20.5	236.9	16.7	34.9	186.3	545.7	267.9	729.6	84.0
1967 <sup>1</sup> .....	962	214	20.7	167.0	16.6	35.9	126.9	468.5	188.9	589.5	68.0
1963 .....	1 447	209	22.0	135.4	18.0	36.3	106.7	450.5	260.9	654.5	57.0
1958 .....	1 323	253	27.1	142.7	22.8	43.2	113.0	452.4	239.5	638.8	53.0
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> .....	385	134	24.1	697.4	17.5	34.8	486.4	1 645.6	1 127.0	2 398.9	373.7
1977 <sup>1</sup> .....	417	141	21.8	391.6	17.9	34.7	307.6	902.4	529.9	1 205.0	227.3
1972 <sup>1</sup> .....	420	136	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 <sup>1</sup> .....	464	142	15.5	136.2	12.3	27.4	103.2	302.3	(D)	396.6	(D)
1963 .....	584	145	16.2	106.8	13.2	27.1	84.5	246.3	123.3	336.1	33.5
1958 <sup>3</sup> .....	576	154	18.5	105.5	15.6	30.2	83.8	232.9	98.8	307.7	23.9

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See Introduction for further explanation.

<sup>3</sup>Includes data for mining operations at manufacturing locations.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)
		Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>All mineral industries .....</b>	<b>E1</b>	<b>1 682</b>	<b>199</b>	<b>31.3</b>	<b>845.1</b>	<b>23.1</b>	<b>46.2</b>	<b>596.4</b>	<b>2 543.9</b>	<b>1 576.6</b>	<b>3 607.8</b>	<b>25.8</b>	<b>1 162.7</b>
10	<b>Metal mining .....</b>	<b>E1</b>	<b>10</b>	<b>1</b>	<b>.2</b>	<b>3.8</b>	<b>(Z)</b>	<b>(Z)</b>	<b>.1</b>	<b>.6</b>	<b>.7</b>	<b>1.2</b>	<b>.2</b>	<b>(NA)</b>
1011	Iron ores .....	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	<b>Bituminous coal and lignite mining .....</b>	<b>-</b>	<b>117</b>	<b>82</b>	<b>19.2</b>	<b>576.2</b>	<b>14.7</b>	<b>29.0</b>	<b>428.5</b>	<b>1 449.0</b>	<b>1 013.4</b>	<b>2 123.0</b>	<b>339.4</b>	<b>15.9</b>
121	Bituminous coal and lignite mining .....	-	117	82	19.2	576.2	14.7	29.0	428.5	1 449.0	1 013.4	2 123.0	339.4	15.9
1211	Bituminous coal and lignite .....	-	110	79	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	15.9	686.6
1213	Bituminous coal and lignite mining services .....	-	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	2.0
13	<b>Oil and gas extraction .....</b>	<b>E4</b>	<b>1 297</b>	<b>65</b>	<b>7.2</b>	<b>147.7</b>	<b>5.6</b>	<b>11.4</b>	<b>110.1</b>	<b>898.2</b>	<b>449.7</b>	<b>1 208.9</b>	<b>139.0</b>	<b>4.1</b>
1311	Crude petroleum and natural gas .....	E4	664	28	3.5	70.3	2.5	4.7	46.4	679.2	335.0	916.3	97.9	2.2
138	Oil and gas field services .....	E3	632	37	3.8	77.5	3.1	6.7	63.7	219.0	114.7	292.6	41.1	1.9
1381	Drilling oil and gas wells .....	E4	283	16	1.6	34.1	1.5	3.2	30.5	98.9	55.0	131.2	22.7	CC
1382	Oil and gas field exploration services .....	E2	28	3	.2	4.5	.2	.4	3.2	12.3	5.6	16.4	1.5	(NA)
1389	Oil and gas field services, n.e.c. ....	E3	321	18	1.9	38.9	1.5	3.1	30.0	107.8	54.2	145.0	16.9	1.1
14	<b>Nonmetallic minerals, except fuels .....</b>	<b>-</b>	<b>258</b>	<b>51</b>	<b>4.7</b>	<b>117.4</b>	<b>2.8</b>	<b>5.7</b>	<b>57.8</b>	<b>196.0</b>	<b>112.9</b>	<b>274.7</b>	<b>34.1</b>	<b>5.8</b>
142	Crushed and broken stone, including riprap .....	-	113	27	1.8	40.4	1.4	3.0	31.0	112.0	59.5	155.1	16.4	2.7
1422	Crushed and broken limestone .....	-	107	27	1.8	40.0	1.4	3.0	30.6	110.6	58.8	153.5	15.9	2.4
144	Sand and gravel .....	E1	120	16	1.3	29.0	1.0	2.1	21.5	69.2	(D)	96.4	(D)	2.0
1442	Construction sand and gravel .....	E2	112	9	.8	18.0	.6	1.3	14.1	39.7	20.8	55.7	4.9	1.3
1446	Industrial sand .....	-	8	7	.5	11.1	.4	.8	7.5	29.5	(D)	40.8	(D)	.7
145	Clay, ceramic, and refractory minerals .....	-	5	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB
1452	Bentonite .....	-	2	1	AA	(D)	-	-	-	-	-	-	-	AA
147	Chemical and fertilizer mineral mining .....	-	7	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB
1473	Flourspar .....	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB
1474	Potash, soda, and borate minerals .....	-	1	1	AA	(D)	-	-	-	-	-	-	-	(NA)
1475	Phosphate rock .....	-	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1476	Rock salt .....	E9	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)

See footnotes at end of table.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977—Con.**

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	13	.2	2.0	2.3	(X)
Crushed and broken stone, including riprap .....	3	(D)	(D)	(D)	(D)
Crushed and broken limestone .....	3	(D)	(D)	(D)	(D)
Sand and gravel .....	3	.1	.7	.3	424.3

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ucing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants		Undistri- buted¹
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments-----number...	1 682	1 654	693	31	19	643	211	28	176	7	6	744	28
	Employees -----1,000...	31.3	31.0	6.3	2.5	.5	3.2	17.1	10.3	6.7	.1	(D)	(D)	.3
	Value added in mining ----- mil. dol...	2 543.9	2 506.0	936.5	206.1	51.2	679.2	1 290.6	709.5	577.9	3.2	(D)	(D)	37.8
<b>10</b>	<b>METAL MINING</b>													
	Establishments-----number...	10	10	1	-	1	-	-	-	-	-	-	9	-
	Employees -----1,000...	.2	.2	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining ----- mil. dol...	.6	.6	(D)	-	(D)	-	-	-	-	-	-	(D)	-
<b>101</b>	<b>Iron ores</b>													
	Establishments-----number...	2	2	1	-	1	-	-	-	-	-	-	1	-
	Employees -----1,000...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining ----- mil. dol...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
<b>104</b>	<b>Gold and silver ores</b>													
	Establishments-----number...	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees -----1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ----- mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>108</b>	<b>Metal mining services</b>													
	Establishments-----number...	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees -----1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ----- mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.



Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistributed <sup>1</sup>
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
12	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number..	117	110	36	31	5	-	37	20	17	-	6	31	7
	Employees.....1,000.....	19.2	(D)	3.0	2.5	.5	-	14.0	9.8	4.3	-	(D)	(D)	(D)
	Value added in mining.....mil. dol..	1 449.0	(D)	254.6	206.1	48.5	-	1 109.9	687.7	422.2	-	(D)	(D)	(D)
121	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number..	117	110	36	31	5	-	37	20	17	-	6	31	7
	Employees.....1,000.....	19.2	(D)	3.0	2.5	.5	-	14.0	9.8	4.3	-	(D)	(D)	(D)
	Value added in mining.....mil. dol..	1 449.0	(D)	254.6	206.1	48.5	-	1 109.9	687.7	422.2	-	(D)	(D)	(D)
13	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number..	1 297	1 280	642	-	-	642	-	-	-	-	-	638	17
	Employees.....1,000.....	7.2	(D)	(D)	-	-	(D)	-	-	-	-	-	3.9	(D)
	Value added in mining.....mil. dol..	898.2	(D)	(D)	-	-	(D)	-	-	-	-	-	219.0	(D)
131	<b>Crude petroleum and natural gas</b>													
	Establishments.....number..	664	647	642	-	-	642	-	-	-	-	-	5	17
	Employees.....1,000.....	3.5	(D)	(D)	-	-	(D)	-	-	-	-	-	.1	(D)
	Value added in mining.....mil. dol..	679.2	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)
132	<b>Natural gas liquids</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000.....	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining.....mil. dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
138	<b>Oil and gas field services</b>													
	Establishments.....number..	632	632	-	-	-	-	-	-	-	-	-	632	-
	Employees.....1,000.....	3.8	3.8	-	-	-	-	-	-	-	-	-	3.8	-
	Value added in mining.....mil. dol..	219.0	219.0	-	-	-	-	-	-	-	-	-	219.0	-
14	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments.....number..	258	254	14	-	13	1	174	8	159	7	-	66	4
	Employees.....1,000.....	4.7	4.7	.1	-	(D)	(D)	3.0	.5	2.4	.1	-	1.6	(Z)
	Value added in mining.....mil. dol..	196.0	196.0	2.8	-	(D)	(D)	180.6	21.8	155.6	3.2	-	12.6	(Z)
141	<b>Dimension stone</b>													
	Establishments.....number..	4	3	3	-	3	-	-	-	-	-	-	-	1
	Employees.....1,000.....	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	<b>Crushed and broken stone, including riprap</b>													
	Establishments.....number..	113	111	-	-	-	-	108	6	102	-	-	3	2
	Employees.....1,000.....	1.8	1.8	-	-	-	-	1.7	(D)	(D)	-	-	.1	(Z)
	Value added in mining.....mil. dol..	112.0	112.0	-	-	-	-	112.0	(D)	(D)	-	-	-	-
144	<b>Sand and gravel</b>													
	Establishments.....number..	120	119	5	-	4	1	59	-	52	7	-	55	1
	Employees.....1,000.....	1.3	1.3	(D)	-	(Z)	(D)	1.0	-	.9	.1	-	(D)	(Z)
	Value added in mining.....mil. dol..	69.2	69.2	(D)	-	.9	(D)	56.0	-	52.8	3.2	-	(D)	(Z)

See footnotes at end of table.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Separately operated prepara- tion plants		Undistri- buted <sup>1</sup>
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
14	NONMETALLIC MINERALS, EXCEPT FUELS—Con.													
145	Clay, ceramic, and refractory minerals													
	Establishments.....number...	5	5	2	-	2	-	1	-	1	-	-	2	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer mineral mining													
	Establishments.....number...	7	7	3	-	3	-	1	1	-	-	-	3	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
148	Nonmetallic minerals services													
	Establishments.....number...	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals													
	Establishments.....number...	6	6	1	-	1	-	5	1	4	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year..... number...	1 682	Cost of supplies..... mil. dol...	1 576.6
With 0 to 19 employees..... do...	1 483	Supplies used, minerals received, and purchased machinery installed..... do...	1 243.7
With 20 to 99 employees..... do...	135	Resales..... do...	5.2
With 100 employees or more..... do...	64	Purchased fuels consumed..... do...	76.4
All employees:		Purchased electric energy:	
Average for year.....1,000...	31.3	Quantity..... mil. kWh...	2 266.6
Payroll for year..... mil. dol...	845.1	Cost..... mil. dol...	102.3
		Electric energy generated less sold..... mil. kWh...	(D)
		Contract work..... mil. dol...	149.0
Production, development, and exploration workers:		Cost of purchased communication services..... do...	3.5
Average for year.....1,000...	23.1	Value of shipments and receipts..... do...	3 607.8
March..... do...	22.8	Value of resales..... do...	6.6
May..... do...	23.9	Capital expenditures during year (except land and mineral rights)..... do...	512.7
August..... do...	23.5	New capital expenditures during year..... do...	332.4
November..... do...	22.0	Buildings and other structures, except land..... do...	51.7
Hours..... millions...	46.2	Machinery and equipment..... do...	280.7
January to March..... do...	12.0	Used capital expenditures during year..... do...	79.5
April to June..... do...	11.7	Buildings and other structures, except land..... do...	2.7
July to September..... do...	11.3	Machinery and equipment..... do...	76.8
October to December..... do...	11.1	Mineral exploration and development <sup>1</sup> ..... do...	100.7
Wages..... mil. dol...	596.4	Rental payments during year..... do...	15.6
Supplemental labor costs not included in payroll..... do...	344.6	Buildings and other structures, except land..... do...	3.2
Legally required expenditures, including Social Security contributions..... do...	130.0	Machinery and equipment..... do...	12.4
Payments for voluntary programs..... do...	214.6	Expensed mineral exploration, development, land, and rights <sup>1 2</sup> ..... do...	187.4
Value added by mining..... do...	2 543.9		

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.



Table 4b. **Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total inventories<sup>1</sup></b> .....	<b>236.3</b>	<b>280.1</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> .....	16.9	17.1
LIFO reserve .....	4.5	4.4
LIFO value .....	12.4	12.8
Not subject to LIFO costing .....	169.6	209.5
Valuation method not reported <sup>3</sup> .....	48.0	52.0
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> .....	1.8	1.5

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. **Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	Illinois-----	E1	1 682	199	31.3	845.1	23.1	46.2	596.4	2 543.9	1 576.6	3 607.8	512.7	25.8	1 162.7
	Adams County-----	-	9	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels-----	-	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap-----	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Christian County-----	E1	17	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining-----	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining-----	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction-----	E6	16	-	(Z)	.7	(Z)	.1	.6	7.3	(D)	10.4	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E6	9	-	(Z)	.4	(Z)	.1	.3	6.7	(D)	9.6	(D)	(NA)	(NA)
	Clark County-----	E6	31	1	.2	3.3	.1	.3	2.4	11.7	7.1	17.2	1.6	.1	5.4
13	Oil and gas extraction-----	E7	29	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E5	16	-	(Z)	.9	(Z)	.1	.5	4.6	(D)	7.9	(D)	(NA)	(NA)
138	Oil and gas field services-----	E9	13	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Clay County-----	E2	96	6	.7	14.2	.5	1.1	10.4	77.8	(D)	101.0	(D)	.4	27.5
13	Oil and gas extraction-----	E2	95	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E2	46	3	.2	4.0	.2	.3	2.7	49.0	26.4	62.6	12.8	.1	17.7
138	Oil and gas field services-----	E1	49	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Clinton County-----	-	26	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining-----	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining-----	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction-----	E1	25	-	.1	1.2	.1	.1	.9	10.0	2.6	11.4	1.3	(NA)	(NA)
131	Crude petroleum and natural gas-----	E1	17	-	.1	.7	(Z)	.1	.5	8.5	(D)	9.6	(D)	(NA)	(NA)
	Coles County-----	E2	21	1	.1	1.6	.1	.2	1.4	7.2	4.5	10.7	1.0	.1	4.4
13	Oil and gas extraction-----	E3	19	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Cook County-----	E6	72	23	2.3	67.7	.7	1.5	16.2	106.4	51.2	146.9	10.7	1.3	43.9
13	Oil and gas extraction-----	E9	37	6	.4	10.4	.2	.4	3.9	58.8	27.9	84.5	2.3	.3	13.1
131	Crude petroleum and natural gas-----	E9	23	4	.3	8.3	.1	.2	2.2	48.2	(D)	70.6	(D)	(NA)	(NA)
138	Oil and gas field services-----	E9	14	2	.1	2.1	.1	.1	1.7	10.6	(D)	13.8	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels-----	E2	19	10	1.2	41.3	.4	.9	10.3	41.9	20.4	55.0	7.3	.8	28.2
142	Crushed and broken stone, including riprap-----	-	6	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel-----	E8	8	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	8.5

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
13	Illinois—Con. Crawford County -----	E1	48	3	.4	9.1	.3	.7	7.4	31.5	19.2	45.6	5.2	.3	15.5
131	Oil and gas extraction -----	E1	46	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Crude petroleum and natural gas -----	E1	26	2	.3	7.2	.2	.5	5.7	25.9	17.0	38.9	4.0	(NA)	(NA)
138	Oil and gas field services -----	E2	20	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	De Kalb County -----	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Douglas County -----	-	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Du Page County -----	E7	19	1	.1	2.8	.1	.2	2.4	23.1	9.6	31.3	1.4	(NA)	(NA)
13	Oil and gas extraction -----	E9	11	-	(Z)	.7	(Z)	.1	.5	15.5	(D)	22.6	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E9	8	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	6	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Edwards County -----	E3	63	1	.3	5.0	.2	.5	4.1	23.2	9.3	29.6	2.9	.1	4.9
13	Oil and gas extraction -----	E3	63	1	.3	5.0	.2	.5	4.1	23.2	9.3	29.6	2.9	.1	4.9
131	Crude petroleum and natural gas -----	E3	30	-	.1	1.2	.1	.1	.7	12.7	4.9	16.5	1.1	(NA)	(NA)
138	Oil and gas field services -----	E2	33	1	.2	3.8	.2	.4	3.4	10.5	4.4	13.1	1.9	(NA)	(NA)
	Effingham County -----	E2	27	1	.1	2.1	.1	.1	1.2	8.9	5.1	13.3	.7	(NA)	(NA)
13	Oil and gas extraction -----	E2	25	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E3	13	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	E1	12	1	.1	1.4	(Z)	.1	.7	4.7	1.8	6.2	.3	(NA)	(NA)
	Fayette County -----	E4	35	3	.3	6.4	.2	.5	5.3	61.7	(D)	83.9	(D)	.2	20.0
13	Oil and gas extraction -----	E4	35	3	.3	6.4	.2	.5	5.3	61.7	(D)	83.9	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E4	20	2	.2	4.0	.1	.3	3.2	57.9	(D)	77.5	(D)	.1	17.9
138	Oil and gas field services -----	-	15	1	.1	2.4	.1	.2	2.1	3.9	3.0	6.4	.5	(NA)	(NA)
	Franklin County -----	-	38	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	10	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	10	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E5	27	-	.1	2.0	.1	.2	1.6	18.0	6.4	21.5	2.9	(NA)	(NA)
131	Crude petroleum and natural gas -----	E5	16	-	.1	1.1	(Z)	.1	.9	15.9	5.3	18.6	2.5	(NA)	(NA)
	Fulton County -----	-	5	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	42.7
12	Bituminous coal and lignite mining -----	-	3	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	3	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Gallatin County -----	E2	32	3	.6	19.0	.5	1.0	14.6	59.5	22.4	75.9	6.0	(NA)	(NA)
12	Bituminous coal and lignite mining -----	E1	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E1	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E5	26	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E4	17	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Hamilton County -----	-	41	1	.6	15.1	.4	.8	11.2	33.5	18.6	42.2	9.9	.1	4.2
12	Bituminous coal and lignite mining -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E1	40	-	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E1	20	-	(Z)	.8	(Z)	.1	.5	8.3	3.3	9.1	2.6	(NA)	(NA)

See footnotes at end of table.



Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E <sup>2</sup>	Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	<b>Illinois—Con.</b>													
	<b>Hardin County</b> .....	-	5	3	.2	4.7	.2	.4	3.4	9.8	(D)	14.5	(D)	.5
14	Nonmetallic minerals, except fuels .....	-	4	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining .....	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Jackson County</b> .....	-	7	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining .....	-	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Jasper County</b> .....	E5	38	1	.1	3.1	.1	.2	2.4	21.8	10.8	29.9	2.7	(NA)
13	Oil and gas extraction .....	E5	38	1	.1	3.1	.1	.2	2.4	21.8	10.8	29.9	2.7	(NA)
131	Crude petroleum and natural gas .....	E6	16	-	.1	1.3	(Z)	.1	.9	17.8	8.7	24.4	2.1	(NA)
138	Oil and gas field services .....	-	22	1	.1	1.8	.1	.2	1.5	3.9	2.2	5.5	.6	(NA)
	<b>Jefferson County</b> .....	E3	70	7	1.4	39.8	1.1	2.2	31.2	109.1	48.9	148.0	9.9	2.3
12	Bituminous coal and lignite mining .....	-	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E6	67	6	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E7	45	5	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E2	22	1	.1	2.3	.1	.2	2.0	6.0	3.4	7.9	1.5	(NA)
	<b>Kane County</b> .....	-	15	1	.1	2.9	.1	.2	2.2	8.5	4.1	11.0	1.6	.1
14	Nonmetallic minerals, except fuels .....	-	13	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel .....	-	8	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	5.6
	<b>La Salle County</b> .....	-	15	5	.5	10.6	.4	.8	8.0	31.2	18.3	42.0	7.6	.7
14	Nonmetallic minerals, except fuels .....	-	14	5	BB	(D)	.4	.8	8.0	31.2	18.3	42.0	7.6	(NA)
144	Sand and gravel .....	-	9	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	26.3
	<b>Lawrence County</b> .....	E3	53	5	.7	16.4	.6	1.2	12.3	70.0	42.4	100.9	11.5	.3
13	Oil and gas extraction .....	E3	52	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E3	25	3	.5	12.3	.4	.8	8.9	59.4	(D)	86.6	(D)	(NA)
138	Oil and gas field services .....	E2	27	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Livingston County</b> .....	-	6	3	.1	2.3	.1	.2	1.7	5.4	(D)	8.3	(D)	.1
14	Nonmetallic minerals, except fuels .....	-	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap .....	-	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Logan County</b> .....	-	8	2	.3	7.7	.2	.4	5.5	14.3	(D)	12.0	(D)	(NA)
12	Bituminous coal and lignite mining .....	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>McDonough County</b> .....	-	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining .....	-	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>McHenry County</b> .....	E3	15	1	.1	2.4	.1	.2	1.9	9.3	4.7	12.8	1.2	.2
13	Oil and gas extraction .....	E6	4	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E6	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	-	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel .....	-	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Macon County</b> .....	E5	15	-	.1	1.4	(Z)	.1	1.2	7.5	4.4	11.0	.8	(NA)
13	Oil and gas extraction .....	E6	13	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E9	5	-	(Z)	.1	(Z)	(Z)	.1	4.2	1.9	6.1	-	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
12	Illinois—Con. Macoupin County .....	-	9	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	5	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	5	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Madison County .....	E7	20	2	.1	2.5	.1	.2	2.0	11.1	(D)	14.6	(D)	(NA)	(NA)
138	Oil and gas extraction .....	E9	13	1	(Z)	.8	(Z)	.1	.7	7.8	(D)	10.1	(D)	(NA)	(NA)
138	Oil and gas field services .....	E9	8	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Marion County .....	E3	61	3	.5	9.4	.4	.8	7.4	65.0	32.6	84.8	12.9	.2	16.1
131	Oil and gas extraction .....	E3	60	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Crude petroleum and natural gas .....	E1	27	1	.2	3.8	.1	.2	2.7	51.4	25.1	66.8	9.7	.1	14.0
138	Oil and gas field services .....	E8	33	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Montgomery County .....	-	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Ogle County .....	E1	6	1	.1	1.3	.1	.1	1.1	4.1	2.2	6.1	.2	.1	5.5
14	Nonmetallic minerals, except fuels .....	E1	6	1	.1	1.3	.1	.1	1.1	4.1	2.2	6.1	.2	(NA)	(NA)
12	Peoria County .....	E2	10	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	9.7
121	Bituminous coal and lignite mining .....	-	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Perry County .....	-	13	7	2.1	79.0	1.7	4.1	65.1	209.0	171.3	330.5	49.7	1.4	98.5
121	Bituminous coal and lignite mining .....	-	8	7	2.1	78.9	1.7	4.0	65.1	208.7	(D)	330.3	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	8	7	2.1	78.9	1.7	4.0	65.1	208.7	(D)	330.3	(D)	(NA)	(NA)
12	Pope County .....	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Randolph County .....	-	14	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.4	64.7
121	Bituminous coal and lignite mining .....	-	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	63.0
121	Bituminous coal and lignite mining .....	-	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	63.0
13	Richland County .....	E5	90	4	.5	8.5	.4	.8	7.0	45.4	19.5	58.9	6.0	.2	10.3
131	Oil and gas extraction .....	E5	90	4	.5	8.5	.4	.8	7.0	45.4	19.5	58.9	6.0	(NA)	(NA)
138	Crude petroleum and natural gas .....	E6	39	2	.2	2.6	.1	.2	2.0	28.4	10.1	35.1	3.4	(Z)	5.8
138	Oil and gas field services .....	E4	51	2	.3	5.9	.3	.6	5.0	17.0	9.4	23.7	2.6	.1	4.5
12	St. Clair County .....	-	17	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	9	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	9	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Saline County .....	-	33	9	1.1	25.8	.8	1.6	19.3	87.8	(D)	96.9	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	13	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	13	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	18	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
		E <sup>2</sup>													
	Illinois—Con.														
	Sangamon County -----	E6	17	3	.1	2.3	.1	.2	1.8	11.6	6.5	17.4	.7	(NA)	(NA)
13	Oil and gas extraction -----	E7	13	2	.1	1.6	.1	.1	1.3	10.0	(D)	15.0	(D)	(NA)	(NA)
131	Crude petroleum and natural	E9	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	gas -----	E3	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Oil and gas field services -----														
	Union County -----	E1	4	2	.1	1.9	.1	.1	1.1	5.0	(D)	6.2	(D)	(NA)	(NA)
14	Nonmetallic minerals, except	E1	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	fuels -----														
142	Crushed and broken stone,	E1	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	including riprap -----														
	Wabash County -----	E4	87	4	1.3	30.9	1.0	2.0	23.3	125.8	41.5	158.3	8.9	.9	35.4
12	Bituminous coal and lignite	-	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														
121	Bituminous coal and lignite	-	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														
13	Oil and gas extraction -----	E7	83	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural	E8	44	-	.2	3.2	.2	.3	2.1	38.5	17.5	54.5	1.6	(NA)	(NA)
138	gas -----	E6	39	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	5.2
	Oil and gas field services -----														
	Washington County -----	E2	25	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite	-	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														
121	Bituminous coal and lignite	-	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														
13	Oil and gas extraction -----	E9	22	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural	E9	14	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	gas -----														
	Wayne County -----	E4	99	6	.6	11.2	.5	1.0	9.2	77.3	31.0	93.5	14.8	.4	29.2
13	Oil and gas extraction -----	E4	99	6	.6	11.2	.5	1.0	9.2	77.3	31.0	93.5	14.8	(NA)	(NA)
131	Crude petroleum and natural	E4	54	-	.2	2.9	.1	.2	2.0	55.9	21.2	65.8	11.2	(NA)	(NA)
138	gas -----	E4	45	6	.4	8.4	.3	.7	7.2	21.5	9.7	27.7	3.5	(NA)	(NA)
	Oil and gas field services -----														
	White County -----	E2	118	11	.8	16.8	.6	1.2	12.9	63.8	41.9	84.4	21.3	.6	31.3
12	Bituminous coal and lignite	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														
121	Bituminous coal and lignite	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														
13	Oil and gas extraction -----	E3	113	10	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural	E2	58	1	.2	3.6	.2	.3	2.8	33.8	24.4	42.9	15.3	(NA)	(NA)
138	gas -----	E3	55	9	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Oil and gas field services -----														
	Will County -----	E2	10	3	.2	3.5	.1	.3	2.8	9.6	6.9	15.9	.6	.3	12.1
14	Nonmetallic minerals, except	E1	5	3	.1	3.0	.1	.2	2.4	10.2	(D)	13.3	(D)	(NA)	(NA)
	fuels -----														
142	Crushed and broken stone,	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	7.5
	including riprap -----														
	Williamson County -----	-	16	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	19.2
12	Bituminous coal and lignite	-	10	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														
121	Bituminous coal and lignite	-	10	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	mining -----														

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Illinois</b> -----	<b>1 682</b>	<b>10</b>	<b>-</b>	<b>117</b>	<b>1 297</b>	<b>258</b>	<b>Illinois—Con.</b>						
0 to 4 employees -----	1 027	8	-	17	911	91	<b>Du Page County</b> -----	<b>19</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>11</b>	<b>6</b>
5 to 9 employees -----	266	1	-	6	192	67	0 to 19 employees -----	18	1	-	1	11	5
10 to 19 employees -----	190	-	-	12	129	49	20 to 99 employees -----	1	-	-	-	-	1
20 to 49 employees -----	100	-	-	20	48	32	<b>Edgar County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>
50 to 99 employees -----	35	-	-	13	13	9	0 to 19 employees -----	2	-	-	-	2	-
100 to 249 employees -----	32	1	-	20	3	8	<b>Edwards County</b> -----	<b>63</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>63</b>	<b>-</b>
250 to 499 employees -----	21	-	-	19	1	1	0 to 19 employees -----	62	-	-	-	62	-
500 to 999 employees -----	10	-	-	9	-	1	20 to 99 employees -----	1	-	-	-	1	-
1,000 to 2,499 employees -----	1	-	-	1	-	-	<b>Effingham County</b> -----	<b>27</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>25</b>	<b>2</b>
<b>Adams County</b> -----	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4</b>	<b>5</b>	0 to 19 employees -----	26	-	-	-	24	2
0 to 19 employees -----	8	-	-	-	4	4	20 to 99 employees -----	1	-	-	-	1	-
100 to 249 employees -----	1	-	-	-	-	1	<b>Fayette County</b> -----	<b>35</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35</b>	<b>-</b>
<b>Alexander County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	0 to 19 employees -----	32	-	-	-	32	-
0 to 19 employees -----	2	-	-	-	-	2	20 to 99 employees -----	3	-	-	-	3	-
20 to 99 employees -----	1	-	-	-	-	1	<b>Ford County</b> -----	<b>3</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>
<b>Bond County</b> -----	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9</b>	<b>2</b>	0 to 19 employees -----	3	1	-	-	-	2
0 to 19 employees -----	11	-	-	-	9	2	20 to 99 employees -----	3	-	-	-	3	-
<b>Boone County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>Franklin County</b> -----	<b>38</b>	<b>1</b>	<b>-</b>	<b>10</b>	<b>27</b>	<b>-</b>
0 to 19 employees -----	2	-	-	-	-	2	0 to 19 employees -----	29	1	-	1	27	-
<b>Brown County</b> -----	<b>7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>1</b>	20 to 99 employees -----	3	-	-	3	-	-
0 to 19 employees -----	7	-	-	-	6	1	100 to 249 employees -----	1	-	-	1	-	-
<b>Bureau County</b> -----	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	250 employees or more -----	5	-	-	5	-	-
0 to 19 employees -----	1	-	-	-	-	1	<b>Fulton County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>2</b>
<b>Calhoun County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>2</b>	0 to 19 employees -----	2	-	-	-	-	2
0 to 19 employees -----	5	-	-	-	3	2	20 to 99 employees -----	1	-	-	1	-	-
<b>Carroll County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	100 to 249 employees -----	2	-	-	2	-	-
0 to 19 employees -----	3	-	-	-	-	3	<b>Gallatin County</b> -----	<b>32</b>	<b>-</b>	<b>-</b>	<b>5</b>	<b>26</b>	<b>1</b>
<b>Champaign County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	0 to 19 employees -----	29	-	-	2	26	1
0 to 19 employees -----	3	-	-	-	-	3	20 to 99 employees -----	2	-	-	2	-	-
<b>Christian County</b> -----	<b>17</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>16</b>	<b>-</b>	250 employees or more -----	1	-	-	1	-	-
0 to 19 employees -----	16	-	-	-	16	-	<b>Greene County</b> -----	<b>5</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>3</b>
250 employees or more -----	1	-	-	1	-	-	0 to 19 employees -----	5	1	-	-	1	3
<b>Clark County</b> -----	<b>31</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>29</b>	<b>2</b>	<b>Grundy County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>
0 to 19 employees -----	30	-	-	-	28	2	0 to 19 employees -----	2	-	-	-	1	1
20 to 99 employees -----	1	-	-	-	1	-	20 to 99 employees -----	1	-	-	-	-	1
<b>Clay County</b> -----	<b>96</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>95</b>	<b>1</b>	<b>Hamilton County</b> -----	<b>41</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>40</b>	<b>-</b>
0 to 19 employees -----	90	-	-	-	90	1	0 to 19 employees -----	40	-	-	-	40	-
20 to 99 employees -----	5	-	-	-	4	1	250 employees or more -----	1	-	-	1	-	-
100 to 249 employees -----	1	-	-	-	1	-	<b>Hancock County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5</b>
<b>Clinton County</b> -----	<b>26</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>25</b>	<b>-</b>	0 to 19 employees -----	5	-	-	-	-	5
0 to 19 employees -----	25	-	-	-	25	-	<b>Hardin County</b> -----	<b>5</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4</b>
250 employees or more -----	1	-	-	1	-	-	0 to 19 employees -----	2	1	-	-	-	1
<b>Coles County</b> -----	<b>21</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>19</b>	<b>2</b>	20 to 99 employees -----	2	-	-	-	-	2
0 to 19 employees -----	20	-	-	-	19	1	100 to 249 employees -----	1	-	-	-	-	1
20 to 99 employees -----	1	-	-	-	-	1	<b>Henderson County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>
<b>Cook County</b> -----	<b>72</b>	<b>3</b>	<b>-</b>	<b>13</b>	<b>37</b>	<b>19</b>	0 to 19 employees -----	2	-	-	-	1	1
0 to 19 employees -----	49	2	-	7	31	9	<b>Henry County</b> -----	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>
20 to 99 employees -----	15	-	-	4	6	5	0 to 19 employees -----	1	-	-	-	-	1
100 to 249 employees -----	7	1	-	2	-	4	<b>Iroquois County</b> -----	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>
250 employees or more -----	1	-	-	-	-	1	0 to 19 employees -----	1	-	-	-	-	1
<b>Crawford County</b> -----	<b>48</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>46</b>	<b>2</b>	<b>Jackson County</b> -----	<b>7</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>3</b>	<b>2</b>
0 to 19 employees -----	45	-	-	-	43	2	0 to 19 employees -----	5	-	-	-	3	2
20 to 99 employees -----	2	-	-	-	2	-	20 to 99 employees -----	1	-	-	1	-	-
100 to 249 employees -----	1	-	-	-	1	-	250 employees or more -----	1	-	-	1	-	-
<b>Cumberland County</b> -----	<b>12</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>11</b>	<b>1</b>	<b>Jasper County</b> -----	<b>38</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>38</b>	<b>-</b>
0 to 19 employees -----	12	-	-	-	11	1	0 to 19 employees -----	37	-	-	-	37	-
<b>De Kalb County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>	20 to 99 employees -----	1	-	-	-	1	-
0 to 19 employees -----	1	-	-	-	-	1	<b>Jefferson County</b> -----	<b>70</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>67</b>	<b>-</b>
20 to 99 employees -----	1	-	-	-	1	-	0 to 19 employees -----	63	-	-	2	61	-
<b>De Witt County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	20 to 99 employees -----	6	-	-	-	6	-
0 to 19 employees -----	2	-	-	-	2	-	250 employees or more -----	1	-	-	1	-	-
<b>Douglas County</b> -----	<b>7</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>Jersey County</b> -----	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>
0 to 19 employees -----	5	-	-	1	3	1	0 to 19 employees -----	1	-	-	-	-	1
250 employees or more -----	2	-	-	2	-	-							



**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Illinois—Con.</b>							<b>Illinois—Con.</b>						
<b>Jo Daviess County</b> .....	3	-	-	-	-	3	<b>Menard County</b> .....	2	-	-	-	1	1
0 to 19 employees .....	2	-	-	-	-	2	0 to 19 employees .....	2	-	-	-	1	1
20 to 99 employees .....	1	-	-	-	-	1	<b>Monroe County</b> .....	6	-	-	-	1	5
<b>Johnson County</b> .....	1	-	-	-	-	1	0 to 19 employees .....	4	-	-	-	1	3
0 to 19 employees .....	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	-	-	2
<b>Kane County</b> .....	15	-	-	1	1	13	<b>Montgomery County</b> .....	8	-	-	2	2	4
0 to 19 employees .....	14	-	-	1	1	12	0 to 19 employees .....	6	-	-	1	2	3
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Kankakee County</b> .....	6	-	-	-	2	4	250 employees or more .....	1	-	-	1	-	-
0 to 19 employees .....	5	-	-	-	2	3	<b>Morgan County</b> .....	4	-	-	1	2	1
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	4	-	-	1	2	1
<b>Kendall County</b> .....	2	-	-	-	-	2	<b>Moultrie County</b> .....	3	-	-	-	3	-
0 to 19 employees .....	2	-	-	-	-	2	0 to 19 employees .....	3	-	-	-	3	-
<b>Knox County</b> .....	3	-	-	1	-	2	<b>Ogle County</b> .....	6	-	-	-	-	6
0 to 19 employees .....	1	-	-	-	-	1	0 to 19 employees .....	5	-	-	-	-	5
20 to 99 employees .....	2	-	-	1	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Lake County</b> .....	7	-	-	1	4	2	<b>Peoria County</b> .....	10	-	-	3	2	5
0 to 19 employees .....	6	-	-	1	4	1	0 to 19 employees .....	7	-	-	-	2	5
250 employees or more .....	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	2	-	-
<b>La Salle County</b> .....	15	-	-	-	1	14	100 to 249 employees .....	1	-	-	1	-	-
0 to 19 employees .....	10	-	-	-	1	9	<b>Perry County</b> .....	13	-	-	8	5	-
20 to 99 employees .....	3	-	-	-	-	3	0 to 19 employees .....	6	-	-	1	5	-
100 to 249 employees .....	2	-	-	-	-	2	20 to 99 employees .....	1	-	-	1	-	-
<b>Lawrence County</b> .....	53	-	-	-	52	1	100 to 249 employees .....	2	-	-	2	-	-
0 to 19 employees .....	48	-	-	-	47	1	250 employees or more .....	4	-	-	4	-	-
20 to 99 employees .....	4	-	-	-	4	1	<b>Platt County</b> .....	3	-	-	-	1	2
250 employees or more .....	1	-	-	-	1	1	0 to 19 employees .....	3	-	-	-	1	2
<b>Lee County</b> .....	5	-	-	-	-	5	<b>Pike County</b> .....	8	-	-	-	3	5
0 to 19 employees .....	4	-	-	-	-	4	0 to 19 employees .....	8	-	-	-	3	5
20 to 99 employees .....	1	-	-	-	-	1	<b>Pope County</b> .....	2	-	-	1	1	-
<b>Livingston County</b> .....	6	-	-	-	2	4	0 to 19 employees .....	1	-	-	-	1	-
0 to 19 employees .....	3	-	-	-	1	2	100 to 249 employees .....	1	-	-	1	-	-
20 to 99 employees .....	3	-	-	-	1	2	<b>Pulaski County</b> .....	1	-	-	-	-	1
<b>Logan County</b> .....	8	-	-	2	1	5	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees .....	6	-	-	-	1	5	<b>Randolph County</b> .....	14	1	-	5	6	2
100 to 249 employees .....	2	-	-	2	-	-	0 to 19 employees .....	10	1	-	1	6	2
<b>McDonough County</b> .....	4	-	-	2	-	2	20 to 99 employees .....	1	-	-	1	-	-
0 to 19 employees .....	2	-	-	-	-	2	100 to 249 employees .....	2	-	-	2	-	-
20 to 99 employees .....	1	-	-	1	-	-	250 employees or more .....	1	-	-	1	-	-
100 to 249 employees .....	1	-	-	1	-	-	<b>Richland County</b> .....	90	-	-	-	90	-
<b>McHenry County</b> .....	15	-	-	-	4	11	0 to 19 employees .....	86	-	-	-	86	-
0 to 19 employees .....	14	-	-	-	4	10	20 to 99 employees .....	4	-	-	-	4	-
20 to 99 employees .....	1	-	-	-	-	1	<b>Rock Island County</b> .....	11	-	-	-	1	10
<b>McLean County</b> .....	4	-	-	-	1	3	0 to 19 employees .....	11	-	-	-	1	10
0 to 19 employees .....	4	-	-	-	1	3	<b>St. Clair County</b> .....	17	-	-	9	6	2
<b>Macon County</b> .....	15	-	-	-	13	2	0 to 19 employees .....	8	-	-	2	6	-
0 to 19 employees .....	15	-	-	-	13	2	20 to 99 employees .....	5	-	-	3	-	2
<b>Macoupin County</b> .....	9	-	-	5	4	-	100 to 249 employees .....	1	-	-	1	-	-
0 to 19 employees .....	4	-	-	-	4	-	250 employees or more .....	3	-	-	3	-	-
20 to 99 employees .....	2	-	-	2	-	-	<b>Saline County</b> .....	33	-	-	13	18	2
100 to 249 employees .....	1	-	-	1	-	-	0 to 19 employees .....	24	-	-	4	18	2
250 employees or more .....	2	-	-	2	-	-	20 to 99 employees .....	5	-	-	5	-	-
<b>Madison County</b> .....	20	1	-	-	13	6	100 to 249 employees .....	3	-	-	3	-	-
0 to 19 employees .....	18	1	-	-	12	5	250 employees or more .....	1	-	-	1	-	-
20 to 99 employees .....	2	-	-	-	1	1	<b>Sangamon County</b> .....	17	-	-	-	13	4
<b>Marion County</b> .....	61	-	-	-	60	1	0 to 19 employees .....	14	-	-	-	11	3
0 to 19 employees .....	58	-	-	-	57	1	20 to 99 employees .....	3	-	-	-	2	1
20 to 99 employees .....	2	-	-	-	2	-	<b>Schuyler County</b> .....	4	-	-	1	2	1
100 to 249 employees .....	1	-	-	-	1	-	0 to 19 employees .....	3	-	-	-	2	1
<b>Marshall County</b> .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	1	-	-
0 to 19 employees .....	1	-	-	-	-	1	<b>Scott County</b> .....	2	-	-	-	1	1
<b>Mason County</b> .....	2	-	-	-	-	2	0 to 19 employees .....	2	-	-	-	1	1
0 to 19 employees .....	2	-	-	-	-	2	<b>Shelby County</b> .....	2	-	-	-	2	-
							0 to 19 employees .....	2	-	-	-	2	-



**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Illinois—Con.</b>							<b>Illinois—Con.</b>						
<b>Stephenson County</b> .....	1	-	-	-	-	1	<b>Washington County</b> .....	25	-	-	3	22	-
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	19	-	-	-	19	-
							20 to 99 employees.....	4	-	-	1	3	-
							100 to 249 employees.....	1	-	-	1	-	-
							250 employees or more.....	1	-	-	1	-	-
<b>Tazewell County</b> .....	8	-	-	-	1	7	<b>Wayne County</b> .....	99	-	-	-	99	-
0 to 19 employees.....	8	-	-	-	1	7	0 to 19 employees.....	93	-	-	-	93	-
							20 to 99 employees.....	6	-	-	-	6	-
<b>Union County</b> .....	4	-	-	-	1	3	<b>White County</b> .....	118	-	-	2	113	3
0 to 19 employees.....	2	-	-	-	1	1	0 to 19 employees.....	107	-	-	1	103	3
20 to 99 employees.....	2	-	-	-	-	2	20 to 99 employees.....	11	-	-	1	10	-
<b>Vermilion County</b> .....	9	-	-	2	4	3	<b>Whiteside County</b> .....	3	-	-	-	-	3
0 to 19 employees.....	8	-	-	2	4	2	0 to 19 employees.....	2	-	-	-	-	2
20 to 99 employees.....	1	-	-	-	-	1	20 to 99 employees.....	1	-	-	-	-	1
<b>Wabash County</b> .....	87	-	-	2	83	2	<b>Will County</b> .....	10	-	-	-	5	5
0 to 19 employees.....	83	-	-	1	81	1	0 to 19 employees.....	7	-	-	-	5	2
20 to 99 employees.....	3	-	-	-	2	1	20 to 99 employees.....	3	-	-	-	-	3
250 employees or more.....	1	-	-	1	-	-	<b>Williamson County</b> .....	16	-	-	10	5	1
							0 to 19 employees.....	11	-	-	5	5	1
							20 to 99 employees.....	3	-	-	3	-	-
							250 employees or more.....	2	-	-	2	-	-
<b>Warren County</b> .....	2	-	-	-	-	2	<b>Winnebago County</b> .....	7	-	-	-	-	7
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	6	-	-	-	-	6
							20 to 99 employees.....	1	-	-	-	-	1
							<b>Woodford County</b> .....	1	-	-	-	-	1
							0 to 19 employees.....	1	-	-	-	-	1

## CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

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	Page
Summary of Findings .....	2

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### TABLES

#### HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years .....	3
---	---

#### STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977 .....	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982 .....	4
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982 .....	4
4a. Summary Statistics for the State: 1982 .....	6
4b. Inventories for the State: End of 1981 and 1982 .....	6

#### COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977 .....	6
--	---

#### EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982 .....	9
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# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 711 establishments classified in mineral industries in Indiana was \$1,156 million in 1982 compared to \$553 million in 1977. Value added by mining amounted to \$786 million in 1982, and payroll in mining amounted to \$269 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Indiana was 10.3 thousand in 1982 or 1 percent of the Nation's total. This is an increase of 23 percent over 1977. The bituminous coal and lignite mining industry led all other mineral industries in the State, accounting for 61 percent of the State's mineral industries employment.



# Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> .....	2711	298	10.3	269.1	7.6	15.8	192.7	785.8	460.0	1 155.8	90.0
1977 <sup>1</sup> .....	530	84	8.4	147.5	6.1	12.8	104.1	391.7	239.1	552.6	78.2
1972 <sup>1</sup> .....	465	73	6.3	69.3	5.0	10.5	54.4	211.4	87.3	257.8	40.9
1967 <sup>1</sup> .....	497	88	6.5	46.7	5.2	10.9	35.5	134.6	52.0	166.8	19.7
1963 .....	728	76	7.3	41.8	5.9	11.8	32.6	107.5	55.1	143.3	19.4
1958 .....	720	95	8.8	43.5	7.1	13.1	32.4	103.0	48.9	136.5	15.3
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> .....	319	86	8.6	238.5	6.3	13.1	168.8	600.8	374.9	912.7	63.0
1977 <sup>1</sup> <sup>3</sup> .....	353	79	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1972 <sup>1</sup> <sup>3</sup> .....	292	77	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 <sup>1</sup> <sup>3</sup> .....	322	83	6.3	45.6	5.3	11.2	36.6	127.2	47.8	157.9	17.0
1963 <sup>3</sup> .....	428	76	7.3	41.4	6.2	12.6	34.8	98.4	43.9	126.7	15.6
1958 <sup>3</sup> .....	429	95	8.8	43.6	7.4	13.8	34.5	89.1	39.6	117.9	10.7

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See Introduction for further explanation.

<sup>3</sup>Includes data for mining operations at manufacturing locations.

# Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)
		E <sup>1</sup>	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	<b>All mineral industries</b> .....	E1	711	98	10.3	269.1	7.6	15.8	192.7	785.8	460.0	1 155.8	90.0	8.4
12	<b>Bituminous coal and lignite mining</b> .....	-	101	48	6.3	194.7	4.6	9.6	138.3	497.6	324.0	769.6	52.0	4.8
121	Bituminous coal and lignite mining .....	-	101	48	6.3	194.7	4.6	9.6	138.3	497.6	324.0	769.6	52.0	4.8
1211	Bituminous coal and lignite .....	-	95	46	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.7	228.7
1213	Bituminous coal and lignite mining services .....	-	6	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.4
13	<b>Oil and gas extraction</b> .....	E5	392	12	1.6	30.5	1.3	2.7	23.9	185.0	85.1	243.1	27.1	CC
1311	Crude petroleum and natural gas .....	E5	199	3	.6	10.2	.5	.9	7.1	131.9	60.7	175.0	17.6	.3
138	Oil and gas field services .....	E3	193	9	1.0	20.4	.9	1.9	16.8	53.1	24.4	68.0	9.5	BB
1381	Drilling oil and gas wells .....	E3	93	6	.6	11.4	.5	1.1	9.8	28.6	15.4	38.6	5.3	.2
1389	Oil and gas field services, n.e.c. ....	E1	77	3	.3	7.4	.3	.6	5.7	18.9	6.5	22.2	3.2	.2
14	<b>Nonmetallic minerals, except fuels</b> .....	E1	209	38	2.3	43.5	1.7	3.5	30.4	102.0	50.6	141.7	10.9	2.8
1411	Dimension stone .....	E2	7	4	.1	2.3	.1	.2	1.6	4.3	1.4	5.4	.3	.1
142	Crushed and broken stone, including riprap .....	-	76	18	1.1	21.6	.8	1.8	14.9	51.6	28.3	74.3	5.6	1.5
1422	Crushed and broken limestone .....	-	71	17	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	56.1
144	Sand and gravel .....	E2	115	13	.9	16.5	.7	1.3	11.5	40.1	16.9	52.7	4.3	1.1
1442	Construction sand and gravel .....	E2	111	12	.9	15.9	.6	1.3	11.0	37.5	15.8	49.4	3.9	CC

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	17	.7	6.6	7.4	(X)
Dimension stone .....	5	(D)	(D)	(D)	(D)
Crushed and broken stone, including riprap .....	4	.1	1.3	3.3	2 306.8
Crushed and broken limestone .....	4	.1	1.3	3.3	2 306.8
Gypsum .....	2	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants		Undistri- buted¹
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number...	711	698	266	43	31	192	159	5	149	5	3	270	13
	Employees .....1,000...	10.3	10.2	(D)	.5	(D)	(D)	5.7	.2	5.4	.1	(D)	2.5	.1
	Value added in mining ..... mil. dol...	785.8	785.9	(D)	34.7	(D)	(D)	468.0	6.5	456.9	4.7	(D)	92.3	-.2
<b>10</b>	<b>METAL MINING</b>													
	Establishments.....number...	9	9	-	-	-	-	-	-	-	-	-	9	-
	Employees .....1,000...	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining ..... mil. dol...	1.2	1.2	-	-	-	-	-	-	-	-	-	1.2	-
<b>106</b>	<b>Ferroalloy ores, except vanadium</b>													
	Establishments.....number...	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees .....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>108</b>	<b>Metal mining services</b>													
	Establishments.....number...	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees .....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>109</b>	<b>Miscellaneous metal ores</b>													
	Establishments.....number...	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees .....1,000...	-	-	-	-	-	-	-	-	-	-	-	-	-
	Value added in mining ..... mil. dol...	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
<b>12</b>	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number...	101	100	58	43	15	-	21	2	19	-	2	19	1
	Employees .....1,000...	6.3	(D)	1.2	.5	.8	-	3.9	(D)	(D)	-	(D)	1.2	(D)
	Value added in mining ..... mil. dol...	497.6	(D)	101.0	34.7	66.3	-	383.0	(D)	(D)	-	(D)	25.9	(D)
<b>121</b>	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number...	101	100	58	43	15	-	21	2	19	-	2	19	1
	Employees .....1,000...	6.3	(D)	1.2	.5	.8	-	3.9	(D)	(D)	-	(D)	1.2	(D)
	Value added in mining ..... mil. dol...	497.6	(D)	101.0	34.7	66.3	-	383.0	(D)	(D)	-	(D)	25.9	(D)

See footnotes at end of table.

Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistributed <sup>1</sup>
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
13	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number..	392	385	192	-	-	192	-	-	-	-	-	193	7
	Employees.....1,000..	1.6	(D)	(D)	-	-	(D)	-	-	-	-	-	1.0	(D)
	Value added in mining.....mil. dol..	185.0	(D)	(D)	-	-	(D)	-	-	-	-	-	53.1	(D)
131	<b>Crude petroleum and natural gas</b>													
	Establishments.....number..	199	192	192	-	-	192	-	-	-	-	-	-	7
	Employees.....1,000..	.6	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)
	Value added in mining.....mil. dol..	131.9	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)
138	<b>Oil and gas field services</b>													
	Establishments.....number..	193	193	-	-	-	-	-	-	-	-	-	193	-
	Employees.....1,000..	1.0	1.0	-	-	-	-	-	-	-	-	-	1.0	-
	Value added in mining.....mil. dol..	53.1	53.1	-	-	-	-	-	-	-	-	-	53.1	-
14	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments.....number..	209	204	16	-	16	-	138	3	130	5	1	49	5
	Employees.....1,000..	2.3	2.3	(D)	-	(D)	-	1.8	(D)	(D)	.1	(D)	.3	(Z)
	Value added in mining.....mil. dol..	102.0	102.0	(D)	-	(D)	-	85.0	(D)	(D)	4.7	(D)	12.2	(Z)
141	<b>Dimension stone</b>													
	Establishments.....number..	7	7	6	-	6	-	1	-	1	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol..	4.3	4.3	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	<b>Crushed and broken stone, including riprap</b>													
	Establishments.....number..	76	73	-	-	-	-	68	3	63	2	1	4	3
	Employees.....1,000..	1.1	1.1	-	-	-	-	(D)	(D)	.9	(D)	(D)	.1	(Z)
	Value added in mining.....mil. dol..	51.6	51.6	-	-	-	-	(D)	(D)	46.3	(D)	(D)	-	(Z)
144	<b>Sand and gravel</b>													
	Establishments.....number..	115	113	6	-	6	-	65	-	62	3	-	42	2
	Employees.....1,000..	.9	.9	(Z)	-	(Z)	-	(D)	-	.6	(D)	-	(D)	(Z)
	Value added in mining.....mil. dol..	40.1	40.1	.3	-	.3	-	(D)	-	30.1	(D)	-	(D)	(Z)
145	<b>Clay, ceramic, and refractory minerals</b>													
	Establishments.....number..	6	6	4	-	4	-	1	-	1	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(Z)	-
	Value added in mining.....mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
148	<b>Nonmetallic minerals services</b>													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments.....number..	3	3	-	-	-	-	3	-	3	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.



**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number ..	711	Cost of supplies ----- mil. dol ..	460.0
With 0 to 19 employees ----- do ..	613	Supplies used, minerals received, and purchased machinery installed ----- do ..	312.5
With 20 to 99 employees ----- do ..	82	Resales ----- do ..	14.9
With 100 employees or more ----- do ..	16	Purchased fuels consumed ----- do ..	44.9
All employees:		Purchased electric energy:	
Average for year ----- 1,000 ..	10.3	Quantity ----- mil. kWh ..	828.8
Payroll for year ----- mil. dol ..	269.1	Cost ----- mil. dol ..	32.9
		Electric energy generated less sold ----- mil. kWh ..	.5
		Contract work ----- mil. dol ..	54.7
Production, development, and exploration workers:		Cost of purchased communication services ----- do ..	1.2
Average for year ----- 1,000 ..	7.6	Value of shipments and receipts ----- do ..	1 155.8
March ----- do ..	7.5	Value of resales ----- do ..	17.8
May ----- do ..	7.9		
August ----- do ..	7.7	Capital expenditures during year (except land and mineral rights) ----- do ..	90.0
November ----- do ..	7.6	New capital expenditures during year ----- do ..	66.6
Hours ----- millions ..	15.8	Buildings and other structures, except land ----- do ..	3.3
January to March ----- do ..	3.9	Machinery and equipment ----- do ..	63.3
April to June ----- do ..	4.2		
July to September ----- do ..	3.9	Used capital expenditures during year ----- do ..	8.7
October to December ----- do ..	3.8	Buildings and other structures, except land ----- do ..	(Z)
Wages ----- mil. dol ..	192.7	Machinery and equipment ----- do ..	8.6
Supplemental labor costs not included in payroll ----- do ..	97.5	Mineral exploration and development <sup>1</sup> ----- do ..	14.8
Legally required expenditures, including Social Security contributions ----- do ..	26.4	Rental payments during year ----- do ..	15.8
Payments for voluntary programs ----- do ..	71.1	Buildings and other structures, except land ----- do ..	.4
		Machinery and equipment ----- do ..	15.3
Value added by mining ----- do ..	785.8	Expensed mineral exploration, development, land, and rights <sup>1 2</sup> ----- do ..	47.7

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total inventories <sup>1</sup> -----	104.7	102.7
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> -----	7.1	6.8
LIFO reserve -----	1.7	1.6
LIFO value -----	5.3	5.2
Not subject to LIFO costing -----	73.4	74.5
Valuation method not reported <sup>3</sup> -----	24.2	21.5
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> -----	-	(Z)

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		E <sup>2</sup>	Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
14	Indiana -----	E1	711	98	10.3	269.1	7.6	15.8	192.7	785.8	460.0	1 155.8	90.0	8.4	391.7
	Allen County -----	E1	13	1	.1	2.0	.1	.2	1.3	4.5	2.9	6.8	.5	.2	5.4
	Nonmetallic minerals, except fuels -----	-	10	1	.1	1.8	.1	.1	1.2	3.8	(D)	6.0	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	3	1	.1	1.6	(Z)	.1	1.0	3.2	(D)	5.1	(D)	(NA)	(NA)
14	Clark County -----	E2	6	3	.1	1.5	.1	.2	1.2	4.3	(D)	6.3	(D)	(NA)	(NA)
	Nonmetallic minerals, except fuels -----	E2	6	3	.1	1.5	.1	.2	1.2	4.3	(D)	6.3	(D)	(NA)	(NA)
	142	Crushed and broken stone, including riprap -----	E3	5	3	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
12	Indiana—Con. Clay County -----	-	11	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	18.0
	Bituminous coal and lignite mining -----	-	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Crawford County -----	E2	8	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	7	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E1	5	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Daviess County -----	-	31	5	.4	8.8	.4	.8	8.1	24.7	14.2	35.8	3.1	(Z)	4.3
12	Bituminous coal and lignite mining -----	-	8	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	8	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	-	21	1	.2	3.9	.2	.3	3.5	13.4	(D)	17.8	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E1	9	-	(Z)	.3	(Z)	(Z)	.3	4.9	(D)	6.6	(D)	(NA)	(NA)
138	Oil and gas field services -----	-	12	1	.2	3.6	.2	.3	3.2	8.5	(D)	11.3	(D)	(NA)	(NA)
	Dubois County -----	E5	16	2	.2	4.9	.2	.3	4.2	12.8	8.4	18.9	2.3	(NA)	(NA)
12	Bituminous coal and lignite mining -----	E4	6	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E4	6	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E9	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Gibson County -----	E1	65	5	1.3	38.4	1.0	2.2	31.5	123.6	59.6	172.9	10.4	.2	12.6
12	Bituminous coal and lignite mining -----	-	7	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	7	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E5	57	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E6	33	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	8.6
138	Oil and gas field services -----	E4	24	1	.1	2.0	.1	.3	1.7	6.4	3.3	8.3	1.4	(NA)	(NA)
	Greene County -----	E1	15	2	.2	5.3	.1	.2	2.0	8.4	4.7	10.6	2.5	.3	14.0
12	Bituminous coal and lignite mining -----	-	5	2	.2	4.4	.1	.1	1.2	6.7	3.9	8.4	2.2	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	5	2	.2	4.4	.1	.1	1.2	6.7	3.9	8.4	2.2	(NA)	(NA)
	Johnson County -----	E1	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Knox County -----	E4	33	3	.3	9.5	.3	.6	8.1	26.0	15.9	36.2	5.6	.1	5.0
12	Bituminous coal and lignite mining -----	E3	7	3	.3	8.3	.2	.5	7.2	15.3	11.8	24.1	3.0	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E3	7	3	.3	8.3	.2	.5	7.2	15.3	11.8	24.1	3.0	(NA)	(NA)
13	Oil and gas extraction -----	E4	24	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E5	12	-	(Z)	.7	(Z)	.1	.4	9.6	(D)	9.8	(D)	(NA)	(NA)
	Lawrence County -----	-	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Marion County -----	E4	27	6	.7	20.5	.2	.3	3.0	12.4	6.4	16.7	2.1	.7	8.0
14	Nonmetallic minerals, except fuels -----	E1	14	4	.2	3.3	.1	.2	2.2	7.9	(D)	10.2	(D)	(NA)	(NA)
144	Sand and gravel -----	E1	11	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group¹	1982											1977		
		E²	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
14	Indiana—Con. Monroe County -----	E2	10	7	.2	4.1	.2	.3	2.9	6.2	4.4	9.6	1.0	(NA)	(NA)
	Nonmetallic minerals, except fuels-----	E2	7	6	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Perry County -----	E5	11	1	.1	1.1	(Z)	.1	.7	3.7	1.8	5.4	.1	(NA)	(NA)
	Pike County -----	E1	27	3	.6	19.5	.5	1.2	18.1	46.7	23.1	67.2	2.7	.6	32.9
12	Bituminous coal and lignite mining -----	-	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	31.1
121	Bituminous coal and lignite mining -----	-	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	31.1
13	Oil and gas extraction -----	E2	22	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E2	12	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Posey County -----	E1	54	1	.2	4.3	.2	.4	3.7	31.6	18.6	41.5	8.7	.3	15.8
	Oil and gas extraction -----	E1	52	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E2	32	1	.1	2.1	.1	.2	1.7	26.3	15.9	34.1	8.1	.1	11.0
138	Oil and gas field services -----	-	20	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Putnam County -----	-	8	1	.1	1.7	.1	.2	1.4	4.2	(D)	6.2	(D)	.1	3.5
	Nonmetallic minerals, except fuels-----	-	7	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Crushed and broken stone, including riprap -----	-	6	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Spencer County -----	E4	25	6	.4	8.7	.3	.7	7.5	35.2	28.8	57.1	6.9	.1	5.6
12	Bituminous coal and lignite mining -----	E4	8	5	.3	7.8	.3	.6	6.7	31.6	27.9	54.0	5.6	.1	4.0
121	Bituminous coal and lignite mining -----	E4	8	5	.3	7.8	.3	.6	6.7	31.6	27.9	54.0	5.6	.1	4.0
12	Sullivan County -----	-	16	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Bituminous coal and lignite mining -----	-	6	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Bituminous coal and lignite mining -----	-	6	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Vanderburgh County -----	E7	89	11	.7	16.1	.4	.9	7.2	53.5	32.4	81.7	4.3	.4	22.1
12	Bituminous coal and lignite mining -----	E1	9	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E1	9	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E8	78	6	.5	7.9	.4	.7	5.6	48.5	(D)	69.4	(D)	.2	20.4
131	Crude petroleum and natural gas-----	E9	49	2	.2	2.8	.1	.2	1.6	36.7	(D)	53.2	(D)	.1	18.7
138	Oil and gas field services -----	E7	29	4	.3	5.1	.2	.5	4.0	11.8	6.9	16.2	2.5	(NA)	(NA)
12	Vermillion County -----	-	3	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Bituminous coal and lignite mining -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Bituminous coal and lignite mining -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Vigo County -----	E8	17	2	.2	3.8	.1	.3	3.0	16.9	(D)	26.1	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	E7	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E7	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E9	9	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E9	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Warrick County -----	-	19	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	103.6
	Bituminous coal and lignite mining -----	-	9	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Bituminous coal and lignite mining -----	-	9	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	White County -----	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.  
<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.  
<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Indiana</b> -----	<b>711</b>	<b>9</b>	<b>-</b>	<b>101</b>	<b>392</b>	<b>209</b>	<b>Indiana—Con.</b>						
0 to 4 employees.....	405	8	-	22	310	65	<b>Dubois County</b> -----	<b>16</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>7</b>	<b>3</b>
5 to 9 employees.....	118	1	-	16	48	53	0 to 19 employees.....	14	-	-	5	7	2
10 to 19 employees.....	90	-	-	15	22	53	20 to 99 employees.....	2	-	-	1	-	1
20 to 49 employees.....	63	-	-	20	7	36	<b>Elkhart County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>
50 to 99 employees.....	19	-	-	13	4	2	0 to 19 employees.....	2	-	-	-	1	1
100 to 249 employees.....	6	-	-	5	1	-	<b>Fayette County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>
250 to 499 employees.....	9	-	-	9	-	-	0 to 19 employees.....	3	-	-	-	1	2
500 to 999 employees.....	1	-	-	1	-	-	<b>Floyd County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>-</b>
<b>Adams County</b> -----	<b>7</b>	<b>2</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>4</b>	0 to 19 employees.....	2	-	-	1	1	-
0 to 19 employees.....	7	2	-	1	-	4	<b>Fountain County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>
<b>Allen County</b> -----	<b>13</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>	<b>10</b>	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	12	-	-	1	2	9	<b>Franklin County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>
20 to 99 employees.....	1	-	-	-	-	1	0 to 19 employees.....	3	-	-	-	1	2
<b>Bartholomew County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>2</b>	<b>Fulton County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5</b>	<b>-</b>
0 to 19 employees.....	3	-	-	1	-	2	0 to 19 employees.....	5	-	-	-	5	-
<b>Boone County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>	<b>Gibson County</b> -----	<b>65</b>	<b>1</b>	<b>-</b>	<b>7</b>	<b>57</b>	<b>-</b>
0 to 19 employees.....	3	-	-	-	1	2	0 to 19 employees.....	60	1	-	3	56	-
<b>Brown County</b> -----	<b>2</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	20 to 99 employees.....	3	-	-	2	1	-
0 to 19 employees.....	2	1	-	-	1	-	250 employees or more.....	2	-	-	2	-	-
<b>Carroll County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>Grant County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>3</b>
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	4	-	-	-	2	2
20 to 99 employees.....	1	-	-	-	-	1	20 to 99 employees.....	1	-	-	-	-	1
<b>Cass County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>Greene County</b> -----	<b>15</b>	<b>-</b>	<b>-</b>	<b>5</b>	<b>8</b>	<b>2</b>
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	13	-	-	3	8	2
20 to 99 employees.....	1	-	-	-	-	1	20 to 99 employees.....	2	-	-	2	-	-
<b>Clark County</b> -----	<b>6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>Hamilton County</b> -----	<b>11</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>5</b>	<b>5</b>
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	10	-	-	-	5	5
20 to 99 employees.....	3	-	-	-	-	3	20 to 99 employees.....	1	-	-	1	-	-
<b>Clay County</b> -----	<b>11</b>	<b>-</b>	<b>-</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>Hancock County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>
0 to 19 employees.....	9	-	-	2	4	3	0 to 19 employees.....	3	-	-	-	1	2
20 to 99 employees.....	1	-	-	1	-	-	<b>Harrison County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>
250 employees or more.....	1	-	-	1	-	-	0 to 19 employees.....	2	-	-	-	-	2
<b>Clinton County</b> -----	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	<b>Hendricks County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>
<b>Crawford County</b> -----	<b>8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>7</b>	0 to 19 employees.....	2	-	-	1	-	1
0 to 19 employees.....	6	-	-	-	1	5	<b>Henry County</b> -----	<b>4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>3</b>
20 to 99 employees.....	2	-	-	-	-	2	0 to 19 employees.....	4	-	-	-	1	3
<b>Daviess County</b> -----	<b>31</b>	<b>1</b>	<b>-</b>	<b>8</b>	<b>21</b>	<b>1</b>	<b>Howard County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>
0 to 19 employees.....	26	1	-	4	20	1	0 to 19 employees.....	3	-	-	-	-	3
20 to 99 employees.....	4	-	-	4	-	-	<b>Huntington County</b> -----	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>
100 to 249 employees.....	1	-	-	-	1	-	0 to 19 employees.....	1	-	-	-	-	1
<b>Dearborn County</b> -----	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	1	-	-	<b>Jackson County</b> -----	<b>3</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>2</b>
<b>Decatur County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>4</b>	0 to 19 employees.....	3	-	-	1	-	2
0 to 19 employees.....	5	-	-	-	1	4							
<b>De Kalb County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>4</b>							
0 to 19 employees.....	5	-	-	-	1	4							
<b>Delaware County</b> -----	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>2</b>							
0 to 19 employees.....	4	-	-	-	3	1							
20 to 99 employees.....	1	-	-	-	-	1							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Indiana—Con.</b>							<b>Indiana—Con.</b>						
<b>Jasper County</b> .....	6	-	-	-	1	5	<b>Parke County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	5	-	-	-	1	4	0 to 19 employees.....	1	-	-	-	-	1
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Jay County</b> .....	3	-	-	-	-	3	<b>Perry County</b> .....	11	-	-	1	8	2
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	10	-	-	1	8	1
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Jefferson County</b> .....	3	-	-	1	-	2	<b>Pike County</b> .....	27	-	-	5	22	-
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	24	-	-	2	22	-
20 to 99 employees .....	1	-	-	1	-	2	20 to 99 employees .....	2	-	-	2	-	-
<b>Jennings County</b> .....	4	-	-	-	1	3	250 employees or more .....	1	-	-	1	-	-
0 to 19 employees.....	4	-	-	-	1	3	<b>Porter County</b> .....	2	-	-	-	-	2
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Johnson County</b> .....	3	-	-	2	1	-	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	1	-	-	<b>Posey County</b> .....	54	-	-	-	52	2
20 to 99 employees .....	2	-	-	1	1	-	0 to 19 employees.....	53	-	-	-	51	2
<b>Knox County</b> .....	33	-	-	7	24	2	20 to 99 employees .....	1	-	-	-	1	-
0 to 19 employees.....	30	-	-	4	24	2	<b>Pulaski County</b> .....	2	-	-	-	-	2
20 to 99 employees .....	2	-	-	2	-	-	0 to 19 employees.....	2	-	-	-	-	2
100 to 249 employees .....	1	-	-	1	-	-	20 to 99 employees .....	2	-	-	-	-	2
<b>Kosciusko County</b> .....	2	-	-	-	1	1	<b>Putnam County</b> .....	8	-	-	-	1	7
0 to 19 employees.....	2	-	-	-	1	1	0 to 19 employees.....	7	-	-	-	1	6
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Lagrange County</b> .....	1	-	-	-	-	1	<b>Randolph County</b> .....	2	-	-	-	-	2
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2
<b>Lake County</b> .....	2	-	-	-	1	1	<b>Ripley County</b> .....	2	-	-	-	1	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	1	1
20 to 99 employees .....	1	-	-	-	1	-	20 to 99 employees .....	2	-	-	-	1	1
<b>La Porte County</b> .....	3	-	-	-	-	3	<b>Rush County</b> .....	4	-	-	-	1	3
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	4	-	-	-	1	3
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	4	-	-	-	1	3
<b>Lawrence County</b> .....	4	-	-	1	-	3	<b>St. Joseph County</b> .....	6	-	-	-	2	4
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	6	-	-	-	2	4
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
250 employees or more .....	1	-	-	1	-	-	250 employees or more .....	1	-	-	-	-	1
<b>Madison County</b> .....	6	-	-	-	-	6	<b>Shelby County</b> .....	3	-	-	-	-	3
0 to 19 employees.....	6	-	-	-	-	6	0 to 19 employees.....	3	-	-	-	-	3
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	3	-	-	-	-	3
<b>Marion County</b> .....	27	1	-	5	7	14	<b>Spencer County</b> .....	25	-	-	8	15	2
0 to 19 employees.....	21	1	-	3	7	10	0 to 19 employees.....	19	-	-	3	15	1
20 to 99 employees .....	5	-	-	1	-	4	20 to 99 employees .....	5	-	-	4	-	1
250 employees or more .....	1	-	-	1	-	-	100 to 249 employees .....	1	-	-	1	-	-
<b>Marshall County</b> .....	2	-	-	-	-	2	<b>Starke County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Martin County</b> .....	2	1	-	1	-	-	<b>Steuben County</b> .....	5	-	-	1	1	3
0 to 19 employees.....	2	1	-	1	-	-	0 to 19 employees.....	4	-	-	-	1	3
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	1	-	-
<b>Miami County</b> .....	3	-	-	-	1	2	<b>Sullivan County</b> .....	16	-	-	6	10	-
0 to 19 employees.....	3	-	-	-	1	2	0 to 19 employees.....	11	-	-	1	10	-
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	2	-	-
<b>Monroe County</b> .....	10	1	-	1	1	7	100 to 249 employees .....	2	-	-	2	-	-
0 to 19 employees.....	3	1	-	-	1	1	250 employees or more .....	1	-	-	1	-	-
20 to 99 employees .....	7	-	-	1	-	6	<b>Switzerland County</b> .....	1	-	-	-	-	1
250 employees or more .....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Montgomery County</b> .....	3	-	-	-	2	1	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees.....	3	-	-	-	2	1	<b>Tippecanoe County</b> .....	7	-	-	-	1	6
20 to 99 employees .....	2	-	-	-	-	2	0 to 19 employees.....	7	-	-	-	1	6
<b>Morgan County</b> .....	5	-	-	-	-	5	20 to 99 employees .....	2	-	-	-	2	-
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	2	-	-	-	2	-
20 to 99 employees .....	2	-	-	-	-	2	20 to 99 employees .....	2	-	-	-	2	-
<b>Newton County</b> .....	1	-	-	-	-	1	<b>Vanderburgh County</b> .....	89	1	-	9	78	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	78	1	-	5	72	-
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	11	-	-	4	6	1
<b>Ohio County</b> .....	1	-	-	-	1	-	<b>Vermillion County</b> .....	3	-	-	1	-	2
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	2	-	-	-	-	2
20 to 99 employees .....	1	-	-	-	-	1	250 employees or more .....	1	-	-	1	-	-
<b>Orange County</b> .....	1	-	-	-	-	1	<b>Vigo County</b> .....	17	-	-	5	9	3
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	15	-	-	4	9	2
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	1	-	1
<b>Owen County</b> .....	2	-	-	-	-	2							
0 to 19 employees.....	2	-	-	-	-	2							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Indiana—Con.</b>							<b>Indiana—Con.</b>						
<b>Wabash County</b> -----	4	-	-	-	4	-	<b>Washington County</b> -----	3	-	-	-	1	2
0 to 19 employees -----	4	-	-	-	4	-	0 to 19 employees -----	2	-	-	-	1	1
							20 to 99 employees -----	1	-	-	-	-	1
<b>Warren County</b> -----	2	-	-	-	-	2	<b>Wayne County</b> -----	3	-	-	-	1	2
0 to 19 employees -----	2	-	-	-	-	2	0 to 19 employees -----	3	-	-	-	1	2
							<b>Wells County</b> -----	3	-	-	-	1	2
<b>Warrick County</b> -----	19	-	-	9	10	-	0 to 19 employees -----	3	-	-	-	1	2
0 to 19 employees -----	14	-	-	4	10	-	<b>White County</b> -----	5	-	-	-	4	1
20 to 99 employees -----	2	-	-	2	-	-	0 to 19 employees -----	4	-	-	-	3	1
100 to 249 employees -----	1	-	-	1	-	-	20 to 99 employees -----	1	-	-	-	1	-
250 employees or more -----	2	-	-	2	-	-	<b>Whitley County</b> -----	2	-	-	-	1	1
							0 to 19 employees -----	2	-	-	-	1	1





# Michigan

## CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

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Summary of Findings .....	Page 2
---------------------------	-----------

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### TABLES

#### HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years .....	3
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#### STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977 .....	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982 .....	4
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982 .....	4
4a. Summary Statistics for the State: 1982 .....	6
4b. Inventories for the State: End of 1981 and 1982 .....	7

#### COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977 .....	7
--	---

#### EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982 .....	10
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# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 941 establishments classified in mineral industries in Michigan amounted to \$2,659 million in 1982, or 1 percent of the Nation's total. This compares to \$1,344 million in 1977 when it also was 1 percent of the Nation's total. Value added by mining amounted to \$1,935 million in 1982, and payroll in mining amounted to \$277 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in

price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Michigan was 10.7 thousand in 1982 or 1 percent of the Nation's total. This is a decrease of 5 percent from 1977. The oil and gas extraction industry led all other mineral industries in the State, accounting for 50 percent of the State's mineral industries employment.



**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> .....	2941	291	10.7	276.7	7.2	14.7	181.7	1 934.7	980.8	2 659.4	256.1
1977 <sup>1</sup> .....	499	87	11.3	203.3	8.6	19.5	148.2	938.9	764.6	1 344.3	359.2
1972 <sup>1</sup> .....	409	69	11.4	119.9	9.2	18.9	91.9	306.3	229.3	467.3	68.3
1967 <sup>1</sup> .....	459	85	12.2	88.0	10.1	20.5	71.3	289.9	246.6	483.7	52.8
1963 .....	691	78	12.2	75.2	10.1	19.9	59.5	223.1	169.5	316.4	76.1
1958 .....	539	87	14.3	73.2	11.9	22.1	59.3	158.0	85.4	218.3	25.0
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> .....	214	29	5.4	140.9	3.4	6.7	91.2	265.6	256.5	489.8	32.3
1977 <sup>1</sup> <sup>3</sup> .....	283	50	8.0	152.4	6.0	13.6	112.1	394.8	486.7	661.1	220.4
1972 <sup>1</sup> <sup>3</sup> .....	267	47	9.9	106.2	8.1	16.5	82.6	263.2	165.1	392.7	35.6
1967 <sup>1</sup> <sup>3</sup> .....	313	70	11.2	80.9	9.3	19.0	66.4	255.9	152.2	362.5	45.6
1963 <sup>3</sup> .....	451	63	10.5	65.4	8.9	17.5	52.2	172.6	135.5	245.0	63.2
1958 <sup>3</sup> .....	380	71	12.9	65.9	10.8	19.7	53.9	141.7	73.3	193.4	21.6

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See introduction for further explanation.

<sup>3</sup>Includes data for mining operations at manufacturing locations.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)
		E <sup>1</sup>	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	<b>All mineral industries</b> .....	E1	941	91	10.7	276.7	7.2	14.7	181.7	1 934.7	980.8	2 659.4	256.1	11.3
10	<b>Metal mining</b> .....	-	16	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.2	237.7
1011	Iron ores .....	-	8	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	FF	(D)
1021	Copper ores .....	-	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
1061	Ferroalloy ores, except vanadium .....	-	2	1	AA	(D)	-	-	-	-	-	-	(NA)	(NA)
13	<b>Oil and gas extraction</b> .....	E1	727	62	5.3	135.9	3.7	8.0	90.5	1 669.1	724.4	2 169.7	223.8	3.5
1311	Crude petroleum and natural gas .....	E1	295	26	2.0	55.1	1.0	2.2	27.5	1 309.8	266.2	1 407.5	168.5	1.1
1321	Natural gas liquids .....	-	7	3	.2	4.0	.2	.3	3.7	114.7	356.3	469.2	1.8	.1
138	Oil and gas field services .....	E2	425	33	3.2	76.7	2.5	5.5	59.2	244.6	101.9	292.9	53.5	2.3
1381	Drilling oil and gas wells .....	E3	127	15	1.3	31.6	1.1	2.3	27.6	105.8	44.9	117.0	33.7	.9
1382	Oil and gas field exploration services .....	-	55	4	.7	16.5	.5	1.1	11.3	51.3	20.9	65.0	7.2	.6
1389	Oil and gas field services, n.e.c. ....	E1	243	14	1.2	28.6	.9	2.1	20.3	87.5	36.1	110.9	12.7	.7
14	<b>Nonmetallic minerals, except fuels</b> .....	E1	195	22	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3.7	131.2
142	Crushed and broken stone, including riprap .....	-	25	8	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	53.6
1422	Crushed and broken limestone .....	-	18	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	53.0
144	Sand and gravel .....	E2	152	10	1.1	22.1	.8	1.5	14.4	42.4	29.8	63.2	9.1	1.6
1442	Construction sand and gravel .....	E3	131	4	.8	15.5	.6	1.1	10.8	30.4	20.3	43.0	7.7	1.2
1446	Industrial sand .....	-	21	6	.3	6.6	.2	.5	3.6	12.0	9.5	20.2	1.4	.4
147	Chemical and fertilizer mineral mining .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1476	Rock salt .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
149	Miscellaneous nonmetallic minerals .....	-	12	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	SS	(D)
1499	Miscellaneous nonmetallic minerals, n.e.c. ....	-	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	7	2	2.5	3.1	(X)
Crushed and broken stone, including riprap .....	3	2	2.3	2.7	3 898.0
Crushed and broken limestone .....	3	2	2.3	2.7	3 898.0

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments											Nonpro- ducing estab- lish- ments
			Total	Mines only				Mines with preparation plants				Separ- ately operated prepara- tion plants	Undistri- buted <sup>1</sup>	
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number..	941	921	292	3	6	283	103	3	98	2	7	519	20
	Employees .....1,000..	10.7	10.5	1.7	(Z)	(D)	(D)	4.5	(D)	3.4	(D)	.2	4.2	.1
	Value added in mining ..... mil. dol..	1 934.7	1 940.6	1 313.8	.1	(D)	(D)	254.9	(D)	237.2	(D)	114.7	257.1	-5.8
10	<b>METAL MINING</b>													
	Establishments.....number..	16	14	2	-	2	-	3	1	2	-	-	9	2
	Employees .....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	-	(D)	(D)
	Value added in mining ..... mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	-	(D)	(D)
101	<b>Iron ores</b>													
	Establishments.....number..	8	6	1	-	1	-	2	-	2	-	-	3	2
	Employees .....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining ..... mil. dol..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	-	(D)
102	<b>Copper ores</b>													
	Establishments.....number..	2	2	1	-	1	-	1	1	-	-	-	-	-
	Employees .....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
	Value added in mining ..... mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
104	<b>Gold and silver ores</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees .....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
106	<b>Ferroalloy ores, except vanadium</b>													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees .....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil. dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
108	<b>Metal mining services</b>													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees .....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Separ- ately opera- tioned prepara- tion plants		Undistri- buted <sup>1</sup>
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well opera- tions, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
12	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number...	3	3	3	3	-	-	-	-	-	-	-	-	-
	Employees .....1,000...	(Z)	(Z)	(Z)	(Z)	-	-	-	-	-	-	-	-	-
	Value added in mining ..... mil. dol...	.1	.1	.1	.1	-	-	-	-	-	-	-	-	-
121	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number...	3	3	3	3	-	-	-	-	-	-	-	-	-
	Employees .....1,000...	(Z)	(Z)	(Z)	(Z)	-	-	-	-	-	-	-	-	-
	Value added in mining ..... mil. dol...	.1	.1	.1	.1	-	-	-	-	-	-	-	-	-
13	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number...	727	719	283	-	-	283	-	-	-	-	7	429	8
	Employees .....1,000...	5.3	(D)	(D)	-	-	(D)	-	-	-	-	2	3.5	(D)
	Value added in mining ..... mil. dol...	1 669.1	(D)	(D)	-	-	(D)	-	-	-	-	114.7	244.6	(D)
131	<b>Crude petroleum and natural gas</b>													
	Establishments.....number...	295	287	283	-	-	283	-	-	-	-	-	4	8
	Employees .....1,000...	2.0	(D)	(D)	-	-	(D)	-	-	-	-	-	.3	(D)
	Value added in mining ..... mil. dol...	1 309.8	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)
132	<b>Natural gas liquids</b>													
	Establishments.....number...	7	7	-	-	-	-	-	-	-	-	7	-	-
	Employees .....1,000...	.2	.2	-	-	-	-	-	-	-	-	.2	-	-
	Value added in mining ..... mil. dol...	114.7	114.7	-	-	-	-	-	-	-	-	114.7	-	-
138	<b>Oil and gas field services</b>													
	Establishments.....number...	425	425	-	-	-	-	-	-	-	-	-	425	-
	Employees .....1,000...	3.2	3.2	-	-	-	-	-	-	-	-	-	3.2	-
	Value added in mining ..... mil. dol...	244.6	244.6	-	-	-	-	-	-	-	-	-	244.6	-
14	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments.....number...	195	185	4	-	4	-	100	2	96	2	-	81	10
	Employees .....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining ..... mil. dol...	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-	(D)	(D)
141	<b>Dimension stone</b>													
	Establishments.....number...	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees .....1,000...	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining ..... mil. dol...	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
142	<b>Crushed and broken stone, including riprap</b>													
	Establishments.....number...	25	25	-	-	-	-	25	-	25	-	-	-	-
	Employees .....1,000...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining ..... mil. dol...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
144	<b>Sand and gravel</b>													
	Establishments.....number...	152	144	2	-	2	-	64	1	61	2	-	78	8
	Employees .....1,000...	1.1	(D)	(D)	-	(D)	-	.8	(D)	.8	(D)	-	(D)	(D)
	Value added in mining ..... mil. dol...	42.4	(D)	(D)	-	(D)	-	32.2	(D)	29.7	(D)	-	(D)	(D)

See footnotes at end of table.



**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpr- oducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants		Undistri- buted <sup>1</sup>
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
14	NONMETALLIC MINERALS, EXCEPT FUELS—Con.													
147	Chemical and fertilizer mineral mining													
	Establishments.....number...	1	1	-	-	-	-	1	1	-	-	-	-	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
148	Nonmetallic minerals services													
	Establishments.....number...	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals													
	Establishments.....number...	12	10	-	-	-	-	10	-	10	-	-	-	2
	Employees.....1,000...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	(D)

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year..... number..	941	Cost of supplies..... mil. dol..	980.8
With 0 to 19 employees..... do..	850	Supplies used, minerals received, and purchased machinery installed..... do..	663.4
With 20 to 99 employees..... do..	78	Resales..... do..	2.7
With 100 employees or more..... do..	13	Purchased fuels consumed..... do..	61.5
All employees:		Purchased electric energy:	
Average for year.....1,000..	10.7	Quantity..... mil. kWh..	1 645.3
Payroll for year..... mil. dol..	276.7	Cost..... mil. dol..	101.1
Production, development, and exploration workers:		Electric energy generated less sold..... mil. kWh..	(D)
Average for year.....1,000..	7.2	Contract work..... mil. dol..	152.1
March..... do..	8.8	Cost of purchased communication services..... do..	1.9
May..... do..	6.9	Value of shipments and receipts..... do..	2 659.4
August..... do..	6.7	Value of resales..... do..	3.4
November..... do..	6.3	Capital expenditures during year (except land and mineral rights)..... do..	256.1
Hours..... millions..	14.7	New capital expenditures during year..... do..	112.4
January to March..... do..	4.4	Buildings and other structures, except land..... do..	6.2
April to June..... do..	3.7	Machinery and equipment..... do..	106.3
July to September..... do..	3.2	Used capital expenditures during year..... do..	8.0
October to December..... do..	3.2	Buildings and other structures, except land..... do..	.2
Wages..... mil. dol..	181.7	Machinery and equipment..... do..	7.8
Supplemental labor costs not included in payroll..... do..	75.5	Mineral exploration and development <sup>1</sup> ..... do..	135.7
Legally required expenditures, including Social Security contributions..... do..	28.6	Rental payments during year..... do..	16.0
Payments for voluntary programs..... do..	46.9	Buildings and other structures, except land..... do..	1.9
Value added by mining..... do..	1 934.7	Machinery and equipment..... do..	14.1
		Expensed mineral exploration, development, land, and rights <sup>1 2</sup> ..... do..	77.2

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total inventories<sup>1</sup></b> .....	<b>167.9</b>	<b>162.0</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> .....	12.2	12.4
LIFO reserve .....	2.6	2.8
LIFO value .....	9.6	9.6
Not subject to LIFO costing .....	120.1	112.3
Valuation method not reported <sup>3</sup> .....	35.6	37.3
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> .....	-	-

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	Michigan .....	E1	941	91	10.7	276.7	7.2	14.7	181.7	1 934.7	980.8	2 659.4	256.1	11.3	938.9
	Alpena County .....	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Antrim County .....	E1	12	-	.1	1.3	.1	.1	1.0	8.4	1.9	8.0	2.2	(NA)	(NA)
13	Oil and gas extraction .....	E1	9	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Bay County .....	E2	19	1	.1	1.5	.1	.1	1.2	10.1	4.1	13.0	1.2	(NA)	(NA)
13	Oil and gas extraction .....	E2	17	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E2	7	-	(Z)	.7	(Z)	.1	.6	7.6	(D)	9.9	(D)	(NA)	(NA)
	Benzie County .....	-	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Berrien County .....	E3	9	3	.1	1.8	.1	.1	1.0	4.6	3.3	7.4	.4	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	E1	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel .....	E1	6	2	.1	1.5	.1	.1	.8	3.0	(D)	5.1	(D)	(NA)	(NA)
	Calhoun County .....	-	36	3	.2	4.9	.1	.3	3.0	33.7	10.3	39.3	4.7	.1	17.0
13	Oil and gas extraction .....	-	30	3	.2	4.1	.1	.2	2.4	32.6	9.8	37.7	4.7	.1	16.3
131	Crude petroleum and natural gas .....	-	14	1	.1	1.7	(Z)	(Z)	.5	23.7	(D)	27.2	(D)	(Z)	14.2
138	Oil and gas field services .....	-	16	2	.1	2.4	.1	.2	1.9	8.9	(D)	10.5	(D)	(NA)	(NA)
	Clare County .....	E1	17	1	.1	1.8	.1	.1	1.5	16.9	(D)	21.9	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E1	16	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	5	-	(Z)	.1	(Z)	(Z)	.1	11.9	(D)	16.6	(D)	(NA)	(NA)
138	Oil and gas field services .....	E4	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Crawford County .....	-	13	1	.1	1.2	(Z)	.1	.9	46.1	5.3	48.3	3.0	(Z)	24.8
13	Oil and gas extraction .....	-	13	1	.1	1.2	(Z)	.1	.9	46.1	5.3	48.3	3.0	(Z)	24.8
131	Crude petroleum and natural gas .....	-	4	1	(Z)	.6	(Z)	(Z)	.4	44.6	4.5	46.2	2.9	(Z)	24.4
	Eaton County .....	E1	17	-	(Z)	1.3	(Z)	.1	1.0	26.7	(D)	27.9	(D)	(Z)	5.6
13	Oil and gas extraction .....	E1	15	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	9	-	(Z)	.5	(Z)	(Z)	.4	23.9	4.1	25.3	2.6	(NA)	(NA)
	Genesee County .....	E6	18	1	.1	1.5	(Z)	.1	1.0	3.8	1.8	5.5	.1	(NA)	(NA)
	Gladwin County .....	-	12	1	(Z)	1.1	(Z)	.1	1.0	7.6	(D)	9.8	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	12	1	(Z)	1.1	(Z)	.1	1.0	7.6	(D)	9.8	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	5	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
13	Michigan—Con. Grand Traverse County ..	E1	53	7	.6	16.3	.4	.8	9.8	203.4	35.9	218.2	21.0	.4	112.0
	Oil and gas extraction .....	E1	51	7	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	19	4	.3	9.2	.1	.3	3.8	180.4	25.4	190.4	15.4	(NA)	(NA)
138	Oil and gas field services .....	E3	32	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.8
	Gratiot County .....	-	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	4	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	3	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Hillsdale County .....	E2	20	1	.1	3.6	.1	.2	2.8	28.6	12.2	39.3	1.5	.1	23.6
13	Oil and gas extraction .....	E2	17	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	7	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids .....	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Ingham County .....	E5	33	3	.3	7.4	.2	.4	4.7	86.1	42.2	121.9	6.5	.1	31.6
13	Oil and gas extraction .....	E5	28	3	.3	6.8	.2	.3	4.2	84.6	41.6	119.9	6.2	(NA)	(NA)
131	Crude petroleum and natural gas .....	E7	13	3	.2	5.0	.1	.2	2.7	70.7	24.5	92.4	2.8	(NA)	(NA)
132	Natural gas liquids .....	-	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E4	13	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Isabella County .....	E7	49	7	.5	11.8	.4	.9	9.2	38.5	22.5	50.4	10.6	1.0	27.3
13	Oil and gas extraction .....	E7	47	7	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E7	22	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E7	25	5	.4	8.7	.3	.6	7.0	24.2	14.7	30.6	8.3	1.0	25.0
	Jackson County .....	E2	20	3	.3	9.1	.1	.1	1.7	9.1	3.3	12.2	.2	.2	5.4
13	Oil and gas extraction .....	E2	17	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.7
131	Crude petroleum and natural gas .....	E2	11	3	.3	8.9	(Z)	.1	1.6	8.8	3.1	11.8	.1	(NA)	(NA)
	Kalkaska County .....	-	37	10	.9	24.7	.6	1.4	16.5	311.8	375.9	668.2	19.5	.4	92.0
13	Oil and gas extraction .....	-	37	10	.9	24.7	.6	1.4	16.5	311.8	375.9	668.2	19.5	.4	92.0
131	Crude petroleum and natural gas .....	-	9	2	.1	4.0	.1	.2	2.8	160.8	31.4	181.6	10.6	.1	57.3
132	Natural gas liquids .....	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E1	26	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Kent County .....	E9	20	2	.2	3.1	.1	.2	2.1	15.7	7.5	22.5	.7	.1	6.8
13	Oil and gas extraction .....	E9	13	2	.1	2.5	.1	.2	1.7	14.4	(D)	20.9	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E9	9	1	.1	1.8	(Z)	.1	1.0	13.3	6.2	19.5	-	(NA)	(NA)
	Lapeer County .....	E1	11	-	.1	1.0	(Z)	.1	.8	16.9	(D)	21.1	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E1	7	-	(Z)	.8	(Z)	.1	.6	16.4	(D)	20.5	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	3	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Mackinac County .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Manistee County .....	-	35	3	.2	6.3	.2	.4	4.3	292.6	32.0	309.6	15.1	.1	84.4
13	Oil and gas extraction .....	-	34	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	14	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	20	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Marquette County .....	-	8	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining .....	-	7	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
101	Iron ores .....	-	7	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Mason County .....	-	9	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	7	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
13	Michigan—Con. Missaukee County -----	-	15	2	.1	2.9	.1	.2	2.1	23.0	(D)	15.8	(D)	(NA)	(NA)
	Oil and gas extraction -----	-	15	2	.1	2.9	.1	.2	2.1	23.0	(D)	15.8	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	6	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	-	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Monroe County -----	E3	9	1	.1	1.9	.1	.2	1.6	5.2	3.0	7.4	.8	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Montcalm County -----	E2	11	-	(Z)	.4	(Z)	(Z)	.3	4.2	1.1	5.1	.2	(NA)	(NA)
	Oakland County -----	E5	44	4	.3	8.3	.2	.5	5.1	44.5	21.1	57.7	7.9	.4	17.1
13	Oil and gas extraction -----	E6	19	1	.1	2.6	.1	.1	1.5	30.2	9.8	37.5	2.5	(NA)	(NA)
131	Crude petroleum and natural gas -----	E7	9	-	(Z)	1.3	(Z)	(Z)	.4	25.9	(D)	33.1	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E3	25	3	.3	5.7	.2	.4	3.6	14.3	11.4	20.3	5.5	.3	13.4
144	Sand and gravel -----	E4	22	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Ogemaw County -----	E2	12	1	.1	1.6	.1	.1	1.1	17.0	(D)	21.7	(D)	.1	5.7
13	Oil and gas extraction -----	E2	10	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E2	7	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Ontonagon County -----	-	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining -----	-	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
102	Copper ores -----	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Osceola County -----	E2	14	3	.2	5.1	.2	.4	4.3	23.6	16.5	37.0	3.0	(NA)	(NA)
13	Oil and gas extraction -----	E2	13	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	E4	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Otsego County -----	E1	40	4	.3	8.1	.3	.5	6.2	208.3	32.3	227.9	12.6	.3	72.9
13	Oil and gas extraction -----	E1	40	4	.3	8.1	.3	.5	6.2	208.3	32.3	227.9	12.6	.3	72.9
131	Crude petroleum and natural gas -----	E1	17	2	.1	2.9	.1	.1	2.0	195.8	25.7	211.3	10.2	.1	66.4
138	Oil and gas field services -----	-	23	2	.2	5.2	.2	.4	4.2	12.5	6.6	16.7	2.4	.2	6.4
	Presque Isle County -----	-	14	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	3	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Roscommon County -----	-	10	1	.1	1.6	(Z)	.1	1.1	22.3	(D)	25.8	(D)	(NA)	(NA)
13	Oil and gas extraction -----	-	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	St. Clair County -----	-	20	3	.1	2.7	.1	.2	2.2	21.5	9.8	29.7	1.7	.1	8.7
13	Oil and gas extraction -----	-	17	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	7	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	7.3
14	Nonmetallic minerals, except fuels -----	E1	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Schoolcraft County -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)	
		E <sup>2</sup>	Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
	Michigan—Con. Wayne County-----	E5	22	2	.3	7.5	.2	.6	5.5	29.9	13.1	41.4	1.6	.4	15.9
13	Oil and gas extraction-----	E9	14	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E9	7	—	(Z)	.6	(Z)	(Z)	.4	13.8	(D)	19.8	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels-----	—	7	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	13.7
144	Sand and gravel-----	—	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining-----	—	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Wexford County-----	—	16	—	.1	1.2	(Z)	.1	.9	16.3	(D)	18.9	(D)	.1	12.2
13	Oil and gas extraction-----	—	14	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	—	2	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	10.1

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Michigan</b> .....	941	16	—	3	727	195	<b>Michigan—Con.</b>						
0 to 4 employees .....	582	6	—	2	482	92	<b>Berrien County—Con.</b>						
5 to 9 employees .....	148	1	—	1	102	44	20 to 99 employees .....	3	—	—	—	—	3
10 to 19 employees .....	120	2	—	—	81	37	<b>Branch County</b> .....	1	—	—	—	1	—
20 to 49 employees .....	56	—	—	—	44	12	0 to 19 employees .....	1	—	—	—	1	—
50 to 99 employees .....	22	2	—	—	15	5	<b>Calhoun County</b> .....	36	—	—	—	30	6
100 to 249 employees .....	7	2	—	—	2	3	0 to 19 employees .....	33	—	—	—	27	6
250 to 499 employees .....	3	—	—	—	1	2	20 to 99 employees .....	3	—	—	—	3	—
500 to 999 employees .....	3	3	—	—	—	—	<b>Cass County</b> .....	8	—	—	—	6	2
<b>Allegan County</b> .....	15	—	—	—	11	4	0 to 19 employees .....	7	—	—	—	6	1
0 to 19 employees .....	15	—	—	—	11	4	20 to 99 employees .....	1	—	—	—	—	1
<b>Alpena County</b> .....	3	—	—	—	1	2	<b>Charlevoix County</b> .....	3	—	—	—	2	1
0 to 19 employees .....	2	—	—	—	1	1	0 to 19 employees .....	3	—	—	—	2	1
100 to 249 employees .....	1	—	—	—	—	1	<b>Cheboygan County</b> .....	9	—	—	—	8	1
<b>Antrim County</b> .....	12	—	—	—	9	3	0 to 19 employees .....	9	—	—	—	8	1
0 to 19 employees .....	12	—	—	—	9	3	<b>Chippewa County</b> .....	1	—	—	—	—	1
<b>Arenac County</b> .....	10	—	—	—	8	2	20 to 99 employees .....	1	—	—	—	—	1
0 to 19 employees .....	10	—	—	—	8	2	<b>Clare County</b> .....	17	—	—	—	16	1
<b>Barry County</b> .....	5	—	—	—	4	1	0 to 19 employees .....	16	—	—	—	15	1
0 to 19 employees .....	5	—	—	—	4	1	20 to 99 employees .....	1	—	—	—	1	—
<b>Bay County</b> .....	19	—	—	—	17	2	<b>Clinton County</b> .....	4	—	—	—	2	2
0 to 19 employees .....	18	—	—	—	16	2	0 to 19 employees .....	4	—	—	—	2	2
20 to 99 employees .....	1	—	—	—	1	—	<b>Crawford County</b> .....	13	—	—	—	13	—
<b>Benzie County</b> .....	6	—	—	—	6	—	0 to 19 employees .....	12	—	—	—	12	—
0 to 19 employees .....	6	—	—	—	6	—	20 to 99 employees .....	1	—	—	—	1	—
<b>Berrien County</b> .....	9	—	—	—	2	7							
0 to 19 employees .....	6	—	—	—	2	4							



**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Michigan—Con.</b>							<b>Michigan—Con.</b>						
<b>Delta County</b> .....	2	-	-	-	1	1	<b>Lapeer County</b> .....	11	1	-	-	7	3
0 to 19 employees.....	2	-	-	-	1	1	0 to 19 employees.....	11	1	-	-	7	3
<b>Dickinson County</b> .....	4	1	-	-	-	3	<b>Lenawee County</b> .....	4	-	-	-	2	2
0 to 19 employees.....	4	1	-	-	-	3	0 to 19 employees.....	4	-	-	-	2	2
<b>Eaton County</b> .....	17	-	-	-	15	2	<b>Livingston County</b> .....	12	-	-	-	6	6
0 to 19 employees.....	17	-	-	-	15	2	0 to 19 employees.....	12	-	-	-	6	6
<b>Emmet County</b> .....	1	-	-	-	1	-	<b>Mackinac County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	1	-	100 to 249 employees .....	1	-	-	-	-	1
<b>Genesee County</b> .....	18	-	-	-	12	6	<b>Macomb County</b> .....	17	-	-	-	13	4
0 to 19 employees.....	17	-	-	-	11	6	0 to 19 employees.....	17	-	-	-	13	4
20 to 99 employees .....	1	-	-	-	1	-	<b>Manistee County</b> .....	35	-	-	-	34	1
<b>Gladwin County</b> .....	12	-	-	-	12	-	0 to 19 employees.....	32	-	-	-	31	1
0 to 19 employees.....	11	-	-	-	11	-	20 to 99 employees .....	3	-	-	-	3	-
20 to 99 employees .....	1	-	-	-	1	-	<b>Marquette County</b> .....	8	7	-	-	1	-
<b>Gogebic County</b> .....	1	-	-	-	-	1	0 to 19 employees.....	3	2	-	-	1	-
0 to 19 employees.....	1	-	-	-	-	1	20 to 99 employees .....	2	2	-	-	-	-
<b>Grand Traverse County</b> .....	53	-	-	-	51	2	100 to 249 employees .....	1	1	-	-	-	-
0 to 19 employees.....	46	-	-	-	44	2	250 employees or more .....	2	2	-	-	-	-
20 to 99 employees .....	7	-	-	-	7	-	<b>Mason County</b> .....	9	-	-	-	7	2
<b>Gratiot County</b> .....	6	-	-	-	4	2	0 to 19 employees.....	8	-	-	-	6	2
0 to 19 employees.....	6	-	-	-	4	2	20 to 99 employees .....	1	-	-	-	1	-
<b>Hillsdale County</b> .....	20	-	-	-	17	3	<b>Mecosta County</b> .....	9	-	-	-	7	2
0 to 19 employees.....	19	-	-	-	16	3	0 to 19 employees.....	9	-	-	-	7	2
20 to 99 employees .....	1	-	-	-	1	-	<b>Midland County</b> .....	9	-	-	-	9	-
<b>Houghton County</b> .....	2	1	-	-	-	1	0 to 19 employees.....	8	-	-	-	8	-
0 to 19 employees.....	2	1	-	-	-	1	20 to 99 employees .....	1	-	-	-	1	-
<b>Huron County</b> .....	3	-	-	-	2	1	<b>Missaukee County</b> .....	15	-	-	-	15	-
0 to 19 employees.....	2	-	-	-	2	1	0 to 19 employees.....	13	-	-	-	13	-
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	-	2	-
<b>Ingham County</b> .....	33	-	-	-	28	5	<b>Monroe County</b> .....	9	-	-	-	4	5
0 to 19 employees.....	30	-	-	-	25	5	0 to 19 employees.....	8	-	-	-	4	4
20 to 99 employees .....	3	-	-	-	3	-	20 to 99 employees .....	1	-	-	-	-	1
<b>Ionia County</b> .....	4	-	-	-	1	3	<b>Montcalm County</b> .....	11	-	-	1	9	1
0 to 19 employees.....	4	-	-	-	1	3	0 to 19 employees.....	11	-	-	1	9	1
<b>Iosco County</b> .....	3	-	-	-	-	3	<b>Montmorency County</b> .....	6	-	-	-	6	-
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	6	-	-	-	6	-
20 to 99 employees .....	1	-	-	-	-	1	<b>Muskegon County</b> .....	4	-	-	-	2	2
<b>Iron County</b> .....	3	1	-	-	2	-	0 to 19 employees.....	3	-	-	-	2	1
0 to 19 employees.....	3	1	-	-	2	-	20 to 99 employees .....	1	-	-	-	-	1
<b>Isabella County</b> .....	49	-	-	-	47	2	<b>Newaygo County</b> .....	7	-	-	-	5	2
0 to 19 employees.....	42	-	-	-	40	2	0 to 19 employees.....	7	-	-	-	5	2
20 to 99 employees .....	6	-	-	-	6	-	<b>Oakland County</b> .....	44	-	-	-	19	25
100 to 249 employees .....	1	-	-	-	1	-	0 to 19 employees.....	40	-	-	-	18	22
<b>Jackson County</b> .....	20	-	-	-	17	3	20 to 99 employees .....	4	-	-	-	1	3
0 to 19 employees.....	17	-	-	-	14	3	<b>Oceana County</b> .....	10	-	-	-	9	1
20 to 99 employees .....	2	-	-	-	2	-	0 to 19 employees.....	10	-	-	-	9	1
100 to 249 employees .....	1	-	-	-	1	-	<b>Ogemaw County</b> .....	12	-	-	-	10	2
<b>Kalamazoo County</b> .....	8	-	-	-	5	3	0 to 19 employees.....	11	-	-	-	9	2
0 to 19 employees.....	8	-	-	-	5	3	20 to 99 employees .....	1	-	-	-	1	-
<b>Kalkaska County</b> .....	37	-	-	-	37	-	<b>Ontonagon County</b> .....	3	3	-	-	-	-
0 to 19 employees.....	27	-	-	-	27	-	0 to 19 employees.....	2	2	-	-	-	-
20 to 99 employees .....	9	-	-	-	9	-	250 employees or more .....	1	1	-	-	-	-
250 employees or more .....	1	-	-	-	1	-							
<b>Kent County</b> .....	20	-	-	1	13	6							
0 to 19 employees.....	18	-	-	1	11	6							
20 to 99 employees .....	2	-	-	-	2	-							
<b>Keweenaw County</b> .....	1	-	-	-	1	-							
0 to 19 employees.....	1	-	-	-	1	-							
<b>Lake County</b> .....	2	-	-	-	1	1							
0 to 19 employees.....	2	-	-	-	1	1							



**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Michigan—Con.</b>							<b>Michigan—Con.</b>						
<b>Osceola County</b> .....	14	-	-	-	13	1	<b>St. Joseph County</b> .....	4	-	-	-	3	1
0 to 19 employees .....	11	-	-	-	10	1	0 to 19 employees .....	4	-	-	-	3	1
20 to 99 employees .....	3	-	-	-	3	-	20 to 99 employees .....	6	-	-	-	2	4
<b>Oscoda County</b> .....	4	-	-	-	4	-	<b>Sanilac County</b> .....	4	-	-	-	1	3
0 to 19 employees .....	4	-	-	-	4	-	0 to 19 employees .....	2	-	-	-	1	1
<b>Otsego County</b> .....	40	-	-	-	40	-	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees .....	36	-	-	-	36	-	<b>Schoolcraft County</b> .....	1	-	-	-	-	1
20 to 99 employees .....	4	-	-	-	4	-	250 employees or more .....	1	-	-	-	-	1
<b>Ottawa County</b> .....	13	-	-	-	5	8	<b>Shiawassee County</b> .....	4	-	-	-	2	2
0 to 19 employees .....	12	-	-	-	5	7	0 to 19 employees .....	4	-	-	-	2	2
20 to 99 employees .....	1	-	-	-	-	1	<b>Tuscola County</b> .....	15	-	-	-	9	6
<b>Presque Isle County</b> .....	14	-	-	-	11	3	0 to 19 employees .....	15	-	-	-	9	6
0 to 19 employees .....	12	-	-	-	10	2	<b>Van Buren County</b> .....	4	-	-	-	4	-
20 to 99 employees .....	1	-	-	-	1	-	0 to 19 employees .....	4	-	-	-	4	-
250 employees or more .....	1	-	-	-	-	1	<b>Washtenaw County</b> .....	14	2	-	-	5	7
<b>Roscommon County</b> .....	10	-	-	-	9	1	0 to 19 employees .....	12	1	-	-	5	6
0 to 19 employees .....	9	-	-	-	8	1	20 to 99 employees .....	1	-	-	-	-	1
20 to 99 employees .....	1	-	-	-	1	-	100 to 249 employees .....	1	1	-	-	-	-
<b>Saginaw County</b> .....	14	-	-	-	7	7	<b>Wayne County</b> .....	22	-	-	1	14	7
0 to 19 employees .....	14	-	-	-	7	7	0 to 19 employees .....	20	-	-	1	14	5
<b>St. Clair County</b> .....	20	-	-	-	17	3	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees .....	17	-	-	-	15	2	100 to 249 employees .....	1	-	-	-	-	1
20 to 99 employees .....	3	-	-	-	2	1	<b>Wexford County</b> .....	16	-	-	-	14	2
							0 to 19 employees .....	16	-	-	-	14	2

## CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

---

	Page
Summary of Findings . . . . .	2

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### TABLES

#### HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years . . . . .	3
---	---

#### STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977 . . . . .	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982 . . . . .	4
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982 . . . . .	4
4a. Summary Statistics for the State: 1982 . . . . .	6
4b. Inventories for the State: End of 1981 and 1982 . . . . .	7

#### COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977 . . . . .	7
--	---

#### EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982 . . . . .	12
---	----

# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 2,196 establishments classified in mineral industries in Ohio amounted to \$3,237 million in 1982, or 1 percent of the Nation's total. This compares to \$1,662 million in 1977 when it was 2 percent of the Nation's total. Value added by mining amounted to \$2,325 million in 1982, and payroll in mining amounted to \$708 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels.

When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Ohio was 28.9 thousand in 1982 or 3 percent of the Nation's total. This is an increase of 5 percent over 1977. The bituminous coal and lignite mining industry led all other mineral industries in the State, accounting for 47 percent of the State's mineral industries employment.



# Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> -----	2 196	255	28.9	707.6	21.9	45.2	509.5	2 324.9	1 460.1	3 237.1	547.9
1977 <sup>1</sup> -----	1 209	231	27.6	446.6	22.0	41.6	336.6	1 181.1	744.6	1 661.9	263.8
1972 <sup>1</sup> -----	1 115	196	20.1	211.3	16.1	32.9	156.3	464.9	280.0	628.1	116.8
1967 <sup>1</sup> -----	1 195	196	17.8	136.8	13.9	29.2	92.8	281.4	172.2	401.3	52.3
1963 -----	1 541	180	17.6	104.2	14.2	28.7	76.5	223.9	140.8	318.8	45.8
1958 -----	1 436	187	20.8	108.3	15.9	29.8	73.4	191.3	124.0	286.3	29.1
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> -----	621	152	18.4	488.3	14.1	28.0	360.2	1 206.6	825.8	1 848.6	183.8
1977 <sup>1</sup> -----	718	184	23.6	379.5	19.1	35.1	292.1	930.7	561.4	1 317.8	174.4
1972 <sup>1</sup> -----	713	171	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 <sup>1</sup> -----	805	187	16.0	125.5	12.5	27.0	86.5	261.3	(D)	371.5	(D)
1963 -----	1 049	175	16.7	99.8	13.7	27.8	75.3	215.4	125.7	306.8	34.3
1958 <sup>3</sup> -----	1 012	202	18.3	95.4	15.1	28.5	71.8	190.1	110.7	280.7	30.1

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See Introduction for further explanation.

<sup>3</sup>Includes data for mining operations at manufacturing locations.

# Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees <sup>2</sup> (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
		E <sup>1</sup>													
	All mineral industries ----	E2	2 196	255	28.9	707.6	21.9	45.2	509.5	2 324.9	1 460.1	3 237.1	547.9	27.6	1 181.1
10	Metal mining ----	E4	14	4	.8	25.9	.1	.1	1.2	6.4	4.1	7.8	2.7	CC	(D)
1011	Iron ores ----	-	3	3	.7	24.1	-	-	-	-	-	-	-	CC	(D)
12	Bituminous coal and lignite mining ----	-	263	101	13.5	380.0	11.2	22.2	304.5	1 023.4	729.3	1 604.1	148.6	17.4	721.3
121	Bituminous coal and lignite mining ----	-	263	101	13.5	380.0	11.2	22.2	304.5	1 023.4	729.3	1 604.1	148.6	17.4	721.3
1211	Bituminous coal and lignite --	-	208	92	13.0	365.0	10.7	21.2	292.8	986.9	707.9	1 550.9	144.0	16.6	686.3
1213	Bituminous coal and lignite mining services ----	-	55	9	.5	15.0	.5	1.0	11.7	36.5	21.4	53.2	4.6	.8	35.0
13	Oil and gas extraction ----	E4	1 575	103	10.5	219.3	7.8	17.2	149.3	1 118.3	634.2	1 388.4	364.2	4.5	275.3
1311	Crude petroleum and natural gas ----	E4	713	36	4.2	90.7	2.5	5.1	44.3	727.7	369.5	817.5	279.7	1.5	161.1
138	Oil and gas field services ----	E3	861	67	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	FF	(D)
1381	Drilling oil and gas wells ----	E3	420	39	3.4	67.7	2.9	6.8	59.3	184.3	144.8	283.6	45.2	1.7	60.5
1382	Oil and gas field exploration services ----	E9	42	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1389	Oil and gas field services, n.e.c. ----	E3	399	26	2.8	57.1	2.2	4.9	42.4	188.0	111.9	263.2	36.8	1.2	49.0
14	Nonmetallic minerals, except fuels ----	E1	344	47	4.1	82.4	2.9	5.7	54.6	176.7	92.5	236.7	32.5	FF	(D)
142	Crushed and broken stone, including riprap ----	E1	99	22	1.6	34.8	1.1	2.2	21.0	64.5	33.3	83.7	14.1	2.1	74.7
1422	Crushed and broken limestone ----	E1	90	22	1.6	33.5	1.1	2.1	20.4	62.7	32.6	81.5	13.9	2.0	68.2
144	Sand and gravel ----	E1	214	19	1.8	32.1	1.2	2.4	23.0	80.9	38.4	107.6	11.7	2.0	71.5
1442	Construction sand and gravel ----	E1	201	16	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	63.8
1446	Industrial sand ----	-	13	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	7.7
145	Clay, ceramic, and refractory minerals ----	E5	14	3	.1	2.9	.1	.2	1.6	6.2	6.1	11.6	.6	.2	5.1
147	Chemical and fertilizer mineral mining ----	-	5	3	.5	12.1	.4	.9	8.7	24.1	(D)	32.6	(D)	BB	(D)
1476	Rock salt ----	-	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	26	.6	4.8	7.7	(X)
Dimension stone .....	2	(D)	(D)	(D)	(D)
Crushed and broken stone, including riprap .....	9	.2	2.2	5.0	3 453.3
Crushed and broken limestone .....	9	.2	2.2	5.0	3 453.3
Clay and related minerals .....	12	.1	.6	.6	559.4
Clay and related minerals, n.e.c. ....	11	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments											Nonpro- ducing estab- lish- ments
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants	Undistri- buted¹	
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number..	2 196	2 159	853	103	51	699	275	13	248	14	6	1 025	37
	Employees.....1,000..	28.9	28.7	6.8	1.9	.8	4.1	12.4	6.0	4.7	1.6	.2	9.4	.2
	Value added in mining.....mil. dol..	2 324.9	2 319.4	941.3	133.7	45.7	761.9	898.5	425.3	326.2	147.0	10.3	469.3	5.5
10	<b>METAL MINING</b>													
	Establishments.....number..	14	12	1	-	1	-	-	-	-	-	1	10	2
	Employees.....1,000..	.8	(D)	(D)	-	(D)	-	-	-	-	-	(D)	.7	(D)
	Value added in mining.....mil. dol..	6.4	(D)	(D)	-	(D)	-	-	-	-	-	(D)	3.4	(D)
101	<b>Iron ores</b>													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	.7	.7	-	-	-	-	-	-	-	-	-	.7	-
	Value added in mining.....mil. dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
102	<b>Copper ores</b>													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
104	<b>Gold and silver ores</b>													
	Establishments.....number..	2	1	-	-	-	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(Z)
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(Z)
108	<b>Metal mining services</b>													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	<b>Miscellaneous metal ores</b>													
	Establishments.....number..	5	4	-	-	-	-	-	-	-	-	1	3	1
	Employees.....1,000..	.1	(D)	-	-	-	-	-	-	-	-	(D)	(D)	(D)
	Value added in mining.....mil. dol..	5.7	(D)	-	-	-	-	-	-	-	-	(D)	(D)	(D)

See footnotes at end of table.



Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants		Undistri- buted¹
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments.....number..	263	257	138	103	25	10	48	10	31	7	3	68	6
	Employees.....1,000.....	13.5	13.5	3.1	1.9	.7	.6	9.0	(D)	(D)	1.6	(D)	(D)	.1
	Value added in mining.....mil. dol..	1 023.4	1 024.2	237.0	133.7	39.9	63.5	742.0	(D)	(D)	145.8	(D)	(D)	-7
121	Bituminous coal and lignite mining													
	Establishments.....number..	263	257	138	103	25	10	48	10	31	7	3	68	6
	Employees.....1,000.....	13.5	13.5	3.1	1.9	.7	.6	9.0	(D)	(D)	1.6	(D)	(D)	.1
	Value added in mining.....mil. dol..	1 023.4	1 024.2	237.0	133.7	39.9	63.5	742.0	(D)	(D)	145.8	(D)	(D)	-7
13	OIL AND GAS EXTRACTION													
	Establishments.....number..	1 575	1 553	688	-	-	688	-	-	-	-	1	864	22
	Employees.....1,000.....	10.5	10.4	(D)	-	-	(D)	-	-	-	-	(D)	(D)	.1
	Value added in mining.....mil. dol..	1 118.3	1 118.3	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(Z)
131	Crude petroleum and natural gas													
	Establishments.....number..	713	691	688	-	-	688	-	-	-	-	-	3	22
	Employees.....1,000.....	4.2	4.1	(D)	-	-	(D)	-	-	-	-	-	(D)	.1
	Value added in mining.....mil. dol..	727.7	727.7	(D)	-	-	(D)	-	-	-	-	-	(D)	(Z)
132	Natural gas liquids													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services													
	Establishments.....number..	861	861	-	-	-	-	-	-	-	-	-	861	-
	Employees.....1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments.....number..	344	337	26	-	25	1	227	3	217	7	1	83	7
	Employees.....1,000.....	4.1	(D)	.2	-	(D)	(D)	3.4	(D)	(D)	.1	(D)	(D)	(D)
	Value added in mining.....mil. dol..	176.7	(D)	6.2	-	(D)	(D)	156.5	(D)	(D)	1.2	(D)	(D)	(D)
141	Dimension stone													
	Establishments.....number..	5	5	4	-	4	-	-	-	-	-	-	1	-
	Employees.....1,000.....	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(Z)	-
	Value added in mining.....mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone, including riprap													
	Establishments.....number..	99	97	2	-	2	-	88	-	88	-	-	7	2
	Employees.....1,000.....	1.6	(D)	(D)	-	(D)	-	1.4	-	1.4	-	-	.2	(D)
	Value added in mining.....mil. dol..	64.5	(D)	(D)	-	(D)	-	59.8	-	59.8	-	-	-	(D)
144	Sand and gravel													
	Establishments.....number..	214	209	8	-	7	1	134	-	127	7	1	66	5
	Employees.....1,000.....	1.8	1.8	(D)	-	(D)	(D)	1.4	-	1.3	.1	(D)	.3	(Z)
	Value added in mining.....mil. dol..	80.9	80.9	(D)	-	(D)	(D)	69.9	-	68.7	1.2	(D)	8.5	-

See footnotes at end of table.



**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistributed <sup>1</sup>
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
14	NONMETALLIC MINERALS, EXCEPT FUELS—Con.													
145	Clay, ceramic, and refractory minerals													
	Establishments..... number..	14	14	10	-	10	-	2	-	2	-	-	2	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	(Z)	-
	Value added in mining..... mil. dol..	6.2	6.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer mineral mining													
	Establishments..... number..	5	5	2	-	2	-	3	3	-	-	-	-	-
	Employees.....1,000..	.5	.5	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
	Value added in mining..... mil. dol..	24.1	24.1	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
148	Nonmetallic minerals services													
	Establishments..... number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year..... number..	2 196	Cost of supplies..... mil. dol..	1 460.1
With 0 to 19 employees..... do..	1 941	Supplies used, minerals received, and purchased machinery installed..... do..	923.8
With 20 to 99 employees..... do..	212	Resales..... do..	55.5
With 100 employees or more..... do..	43	Purchased fuels consumed..... do..	102.7
All employees:		Purchased electric energy:	
Average for year.....1,000..	28.9	Quantity..... mil. kWh..	1 279.3
Payroll for year..... mil. dol..	707.6	Cost..... mil. dol..	51.7
		Electric energy generated less sold..... mil. kWh..	(D)
		Contract work..... mil. dol..	326.3
Production, development, and exploration workers:		Cost of purchased communication services..... do..	3.5
Average for year.....1,000..	21.9	Value of shipments and receipts..... do..	3 237.1
March..... do..	22.2	Value of resales..... do..	64.0
May..... do..	22.6	Capital expenditures during year (except land and mineral rights)..... do..	547.9
August..... do..	22.2	New capital expenditures during year..... do..	293.7
November..... do..	21.0	Buildings and other structures, except land..... do..	54.6
Hours..... millions..	45.2	Machinery and equipment..... do..	239.0
January to March..... do..	11.5	Used capital expenditures during year..... do..	26.9
April to June..... do..	11.7	Buildings and other structures, except land..... do..	3.3
July to September..... do..	11.1	Machinery and equipment..... do..	23.5
October to December..... do..	10.8	Mineral exploration and development <sup>1</sup> ..... do..	227.4
Wages..... mil. dol..	509.5	Rental payments during year..... do..	69.5
Supplemental labor costs not included in payroll..... do..	211.8	Buildings and other structures, except land..... do..	5.1
Legally required expenditures, including Social Security contributions..... do..	98.1	Machinery and equipment..... do..	64.4
Payments for voluntary programs..... do..	113.7	Expensed mineral exploration, development, land, and rights <sup>2</sup> ..... do..	292.3
Value added by mining..... do..	2 324.9		

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total inventories<sup>1</sup></b> .....	<b>177.6</b>	<b>212.2</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> .....	13.4	11.1
LIFO reserve .....	3.7	2.9
LIFO value .....	9.7	8.2
Not subject to LIFO costing .....	96.4	131.5
Valuation method not reported <sup>3</sup> .....	66.5	68.1
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> .....	1.4	1.4

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E <sup>2</sup>	Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	<b>Ohio</b> .....	E2	2 196	255	28.9	707.6	21.9	45.2	509.5	2 324.9	1 460.1	3 237.1	547.9	27.6 1 181.1
	Adams County .....	E7	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	Ashland County .....	E1	15	1	.1	1.1	(Z)	.1	.9	4.0	1.5	5.2	.3	(NA) (NA)
	Ashtabula County .....	-	32	2	.2	5.9	.2	.5	5.2	24.4	16.8	32.7	8.4	.1 4.0
12	Bituminous coal and lignite mining .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
121	Bituminous coal and lignite mining .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
13	Oil and gas extraction .....	-	29	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
131	Crude petroleum and natural gas .....	-	14	1	.1	1.9	.1	.1	1.4	17.1	(D)	19.9	(D)	(NA) (NA)
138	Oil and gas field services .....	E2	15	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	Athens County .....	E1	31	2	.2	3.7	.1	.3	1.8	15.7	21.9	31.4	6.2	(NA) (NA)
13	Oil and gas extraction .....	E1	28	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
138	Oil and gas field services .....	-	13	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	Belmont County .....	-	38	17	2.5	74.7	2.2	4.5	65.4	194.6	154.3	334.5	14.4	4.7 194.9
12	Bituminous coal and lignite mining .....	-	26	17	2.4	74.3	2.1	4.5	65.0	193.2	153.4	332.3	14.2	4.7 192.9
121	Bituminous coal and lignite mining .....	-	26	17	2.4	74.3	2.1	4.5	65.0	193.2	153.4	332.3	14.2	4.7 192.9
	Carroll County .....	E1	29	1	.1	3.2	.1	.3	3.0	17.7	7.5	21.9	3.3	.2 11.6
12	Bituminous coal and lignite mining .....	E2	7	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
121	Bituminous coal and lignite mining .....	E2	7	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
13	Oil and gas extraction .....	E1	21	-	.1	2.1	.1	.2	2.0	14.1	(D)	16.3	(D)	.1 7.1
131	Crude petroleum and natural gas .....	-	8	-	(Z)	.8	(Z)	.1	.7	10.4	3.2	11.4	2.2	(NA) (NA)
	Columbiana County .....	E3	38	6	.4	8.4	.4	.8	6.9	30.9	33.1	57.7	6.2	.4 22.1
12	Bituminous coal and lignite mining .....	E3	20	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4 16.1
121	Bituminous coal and lignite mining .....	E3	20	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4 16.1
13	Oil and gas extraction .....	E2	13	1	.1	2.0	.1	.1	1.4	7.4	(D)	8.3	(D)	(NA) (NA)
131	Crude petroleum and natural gas .....	E3	8	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	Coshocton County .....	E1	70	4	.6	15.9	.5	1.0	12.7	93.4	(D)	83.5	(D)	.6 28.0
12	Bituminous coal and lignite mining .....	-	9	3	.3	10.4	.3	.6	8.7	33.6	24.3	56.2	1.7	.4 24.4
121	Bituminous coal and lignite mining .....	-	9	3	.3	10.4	.3	.6	8.7	33.6	24.3	56.2	1.7	.4 24.4
13	Oil and gas extraction .....	E2	57	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2 3.0
131	Crude petroleum and natural gas .....	E3	27	-	.1	2.2	.1	.2	1.4	51.5	(D)	13.5	(D)	(NA) (NA)

See footnotes at end of table.



Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
13	Ohio—Con. Coshocton County—Con. Oil and gas extraction—Con.														
138	Oil and gas field services -----	E1	30	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Cuyahoga County -----	E5	45	11	1.4	41.5	.4	.9	9.1	38.9	24.2	57.0	6.1	1.2	20.8
13	Oil and gas extraction -----	E9	27	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E9	13	1	.1	1.0	(Z)	.1	.6	9.3	(D)	13.8	(D)	(NA)	(NA)
138	Oil and gas field services -----	E9	14	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	6	4	.3	8.0	.2	.5	5.3	17.7	(D)	26.6	(D)	.3	16.8
147	Chemical and fertilizer mineral mining -----	-	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Erie County -----	E1	9	2	.1	2.6	.1	.2	1.8	5.3	3.6	8.1	.9	.1	5.1
14	Nonmetallic minerals, except fuels -----	-	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Fairfield County -----	E5	20	1	.1	1.2	.1	.1	.9	3.8	2.0	5.3	.5	(NA)	(NA)
13	Oil and gas extraction -----	E4	19	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Franklin County -----	E8	68	11	.9	16.2	.6	1.2	9.4	100.7	46.6	143.9	3.5	.6	27.0
13	Oil and gas extraction -----	E9	51	6	.6	11.2	.4	.8	6.0	87.2	41.2	125.7	2.7	.2	11.8
131	Crude petroleum and natural gas -----	E9	30	4	.4	8.0	.3	.5	4.3	74.8	36.9	110.6	1.1	(Z)	7.6
138	Oil and gas field services -----	E8	21	2	.2	3.2	.1	.2	1.7	12.4	4.3	15.1	1.5	.2	4.2
14	Nonmetallic minerals, except fuels -----	-	11	3	.2	3.7	.1	.2	2.3	9.7	(D)	13.0	(D)	.3	11.3
144	Sand and gravel -----	-	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.2
	Gallia County -----	E3	25	6	.4	9.6	.3	.6	7.5	26.6	19.1	39.8	5.9	.2	11.2
12	Bituminous coal and lignite mining -----	E4	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	10.3
121	Bituminous coal and lignite mining -----	E4	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	10.3
13	Oil and gas extraction -----	E3	15	1	.1	1.2	.1	.2	1.0	5.1	(D)	8.8	(D)	(NA)	(NA)
138	Oil and gas field services -----	E3	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Geauga County -----	-	13	2	.1	2.6	.1	.2	2.0	8.1	8.4	13.0	3.6	.1	4.8
14	Nonmetallic minerals, except fuels -----	-	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel -----	-	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Guernsey County -----	E5	78	15	.8	16.6	.7	1.5	13.1	56.8	33.6	78.8	11.7	.4	38.2
12	Bituminous coal and lignite mining -----	E1	11	2	.1	3.1	.1	.3	2.8	9.2	5.7	13.4	1.5	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E1	11	2	.1	3.1	.1	.3	2.8	9.2	5.7	13.4	1.5	(NA)	(NA)
13	Oil and gas extraction -----	E5	67	13	.7	13.5	.6	1.3	10.3	47.7	27.9	65.4	10.2	(NA)	(NA)
131	Crude petroleum and natural gas -----	E7	19	2	.2	3.9	.1	.2	2.5	20.1	7.9	26.3	1.8	.1	19.4
138	Oil and gas field services -----	E4	48	11	.5	9.6	.5	1.1	7.8	27.5	20.0	39.1	8.4	(NA)	(NA)
	Hamilton County -----	E5	37	8	.6	12.8	.4	.9	10.0	48.7	30.5	69.3	9.9	.3	16.0
12	Bituminous coal and lignite mining -----	E3	11	4	.3	7.4	.3	.6	6.6	13.0	(D)	25.7	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E3	11	4	.3	7.4	.3	.6	6.6	13.0	(D)	25.7	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E9	7	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E9	3	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	18	4	.2	4.2	.1	.3	2.6	9.2	(D)	12.3	(D)	.2	8.2
144	Sand and gravel -----	E1	18	4	.2	4.2	.1	.3	2.6	9.2	(D)	12.3	(D)	(NA)	(NA)

See footnotes at end of table.



**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982												1977	
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>Ohio—Con.</b>														
	<b>Harrison County</b> .....	-	38	15	2.2	66.6	1.6	3.4	46.3	187.3	177.3	329.6	35.1	2.7	106.8
12	Bituminous coal and lignite mining .....	-	23	14	2.1	64.2	1.5	3.2	44.3	181.3	(D)	320.5	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	23	14	2.1	64.2	1.5	3.2	44.3	181.3	(D)	320.5	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E4	12	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E5	7	1	.1	1.8	.1	.2	1.6	4.9	(D)	6.6	(D)	(NA)	(NA)
	<b>Highland County</b> .....	E8	5	1	.1	1.4	.1	.1	1.1	3.6	(D)	5.2	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	E8	5	1	.1	1.4	.1	.1	1.1	3.6	(D)	5.2	(D)	(NA)	(NA)
	<b>Hocking County</b> .....	E4	40	3	.3	4.7	.2	.5	4.1	21.3	11.5	26.1	6.7	.2	14.2
13	Oil and gas extraction .....	E4	37	3	.2	4.2	.2	.5	3.7	20.0	(D)	24.6	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E4	15	1	.1	1.2	(Z)	.1	.9	12.8	7.5	15.4	4.8	(NA)	(NA)
138	Oil and gas field services .....	E5	22	2	.2	3.1	.2	.4	2.8	7.2	(D)	9.1	(D)	(NA)	(NA)
	<b>Holmes County</b> .....	E2	81	4	.6	15.4	.5	1.0	10.1	139.6	(D)	79.0	(D)	.3	26.6
12	Bituminous coal and lignite mining .....	E1	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	E1	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E3	71	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E4	22	-	.1	2.0	.1	.2	1.4	109.2	(D)	30.8	(D)	(NA)	(NA)
138	Oil and gas field services .....	E2	49	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Jefferson County</b> .....	-	26	8	.5	13.9	.4	.8	11.1	46.5	44.4	85.8	5.0	1.3	74.5
12	Bituminous coal and lignite mining .....	-	22	8	.5	13.7	.4	.8	10.9	46.1	(D)	85.1	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	22	8	.5	13.7	.4	.8	10.9	46.1	(D)	85.1	(D)	(NA)	(NA)
	<b>Knox County</b> .....	E4	63	3	.3	5.5	.3	.6	4.3	20.4	14.1	27.7	6.8	.2	6.2
13	Oil and gas extraction .....	E4	58	2	.3	4.6	.2	.5	3.6	17.2	(D)	22.8	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E4	23	1	.1	2.3	.1	.2	1.6	11.9	7.4	15.1	4.3	(NA)	(NA)
138	Oil and gas field services .....	E5	35	1	.2	2.3	.2	.3	2.0	5.2	(D)	7.7	(D)	(NA)	(NA)
	<b>Lake County</b> .....	-	11	2	.3	6.8	.2	.6	4.8	15.2	4.5	16.8	2.8	.3	18.7
13	Oil and gas extraction .....	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	E1	7	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Lawrence County</b> .....	E9	11	2	.1	1.1	.1	.1	.9	5.9	4.0	8.2	1.7	.2	6.8
	<b>Licking County</b> .....	E4	86	5	.5	9.5	.4	.8	6.7	28.7	18.1	42.8	4.1	.3	15.9
13	Oil and gas extraction .....	E5	80	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	15.0
131	Crude petroleum and natural gas .....	E6	35	3	.2	4.4	.1	.3	2.2	14.5	8.0	20.9	1.6	.1	5.3
138	Oil and gas field services .....	E3	45	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	9.7
14	Nonmetallic minerals, except fuels .....	E1	5	1	.1	1.5	.1	.2	1.4	5.0	(D)	7.8	(D)	(NA)	(NA)
144	Sand and gravel .....	E1	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Lorain County</b> .....	E1	10	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E1	8	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Lucas County</b> .....	-	11	2	.1	3.3	.1	.1	1.4	4.8	2.2	6.6	.4	.2	6.4
14	Nonmetallic minerals, except fuels .....	-	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	6.0

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		E <sup>2</sup>	Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
	<b>Ohio—Con.</b>														
	<b>Mahoning County</b> -----	E4	36	3	.4	8.3	.2	.4	4.2	33.1	18.9	45.5	6.6	.3	8.7
12	Bituminous coal and lignite mining -----	E8	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E8	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E1	28	1	.1	2.3	.1	.2	1.7	20.6	(D)	27.8	(D)	.2	4.7
131	Crude petroleum and natural gas -----	E1	17	—	.1	1.3	(Z)	.1	.9	17.7	9.6	23.6	3.7	(NA)	(NA)
	<b>Medina County</b> -----	E2	39	1	.2	4.2	.2	.4	3.4	21.9	9.4	27.9	3.3	(NA)	(NA)
13	Oil and gas extraction -----	E1	37	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E2	19	—	.1	1.5	(Z)	.1	.9	14.9	4.8	18.0	1.7	(NA)	(NA)
138	Oil and gas field services -----	E1	18	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Meigs County</b> -----	-	21	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	56.9
12	Bituminous coal and lignite mining -----	-	4	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	4	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E2	16	1	.1	.9	(Z)	.1	.8	3.0	5.8	7.0	1.7	(NA)	(NA)
	<b>Monroe County</b> -----	-	47	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E1	41	1	.2	4.4	.2	.3	3.3	13.5	7.2	17.7	3.0	(NA)	(NA)
138	Oil and gas field services -----	-	23	1	.2	3.7	.1	.3	2.9	10.5	5.8	14.1	2.2	(NA)	(NA)
	<b>Montgomery County</b> -----	E2	21	3	.3	6.5	.3	.4	4.3	19.1	6.5	21.7	3.9	.2	9.5
12	Bituminous coal and lignite mining -----	E3	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E3	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	11	1	.1	2.0	.1	.1	1.0	5.2	1.5	6.4	.2	.2	7.8
144	Sand and gravel -----	E1	8	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Morgan County</b> -----	-	51	3	1.1	31.7	.9	1.8	25.3	76.0	72.7	131.3	17.4	.1	2.9
12	Bituminous coal and lignite mining -----	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E1	47	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	22	1	.1	2.1	.1	.1	1.1	11.6	16.0	14.2	13.4	(NA)	(NA)
138	Oil and gas field services -----	E2	25	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Morrow County</b> -----	E3	17	1	.1	1.6	.1	.1	1.0	4.4	2.6	6.1	.9	(NA)	(NA)
13	Oil and gas extraction -----	E3	15	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Muskingum County</b> -----	E3	126	21	1.7	39.2	1.3	3.0	30.3	127.3	84.7	182.5	29.5	1.7	89.9
12	Bituminous coal and lignite mining -----	E5	10	6	.4	11.9	.4	.7	9.3	27.9	(D)	40.6	(D)	1.3	64.1
121	Bituminous coal and lignite mining -----	E5	10	6	.4	11.9	.4	.7	9.3	27.9	(D)	40.6	(D)	1.3	64.1
13	Oil and gas extraction -----	E3	108	14	1.1	25.1	.9	2.2	19.6	92.1	65.6	137.8	20.0	.3	24.2
131	Crude petroleum and natural gas -----	E4	45	4	.3	4.8	.2	.4	2.8	28.6	18.4	41.2	5.8	.1	11.7
138	Oil and gas field services -----	E3	63	10	.9	20.3	.7	1.8	16.9	63.6	47.3	96.6	14.3	.3	12.5
	<b>Noble County</b> -----	-	37	1	.2	4.0	.2	.3	3.3	15.7	11.5	19.1	8.2	.1	9.5
12	Bituminous coal and lignite mining -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E1	35	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	E1	21	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	Ohio—Con.	-	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Perry County -----	E2	70	3	1.0	24.9	.9	1.7	20.4	62.6	36.3	85.1	13.8	1.0	39.3
12	Bituminous coal and lignite mining -----	-	6	2	.7	20.1	.6	1.2	16.3	39.6	(D)	53.0	(D)	.8	30.3
121	Bituminous coal and lignite mining -----	-	6	2	.7	20.1	.6	1.2	16.3	39.6	(D)	53.0	(D)	.8	30.3
13	Oil and gas extraction -----	E4	62	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E5	32	1	.1	2.7	.1	.3	2.2	17.2	8.2	22.7	2.6	.1	5.4
138	Oil and gas field services -----	E2	30	-	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Portage County -----	E1	67	3	.4	8.3	.3	.6	6.1	52.9	30.9	70.9	12.9	.3	17.8
13	Oil and gas extraction -----	E1	43	3	.2	5.5	.2	.4	3.9	45.0	28.1	62.5	10.6	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	22	3	.2	3.6	.1	.2	2.4	39.2	23.7	53.9	9.0	(Z)	8.5
138	Oil and gas field services -----	E4	21	-	.1	1.9	.1	.2	1.6	5.8	4.4	8.5	1.7	.1	3.4
14	Nonmetallic minerals, except fuels -----	E2	24	-	.2	2.8	.1	.2	2.1	7.9	2.8	8.5	2.3	.2	5.8
144	Sand and gravel -----	E2	23	-	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.8
	Richland County -----	E9	9	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E9	7	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	E9	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Scioto County -----	-	8	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Stark County -----	E7	111	16	.9	19.6	.7	1.6	15.4	84.4	39.4	112.6	11.2	.8	44.5
12	Bituminous coal and lignite mining -----	E6	12	4	.2	3.3	.1	.2	2.8	7.9	5.1	10.7	2.2	.2	8.3
121	Bituminous coal and lignite mining -----	E6	12	4	.2	3.3	.1	.2	2.8	7.9	5.1	10.7	2.2	.2	8.3
13	Oil and gas extraction -----	E7	87	11	.7	14.8	.5	1.2	11.5	72.9	33.1	97.5	8.5	.5	32.0
131	Crude petroleum and natural gas -----	E7	51	4	.3	4.7	.2	.3	2.7	47.8	20.6	65.5	2.9	.2	22.0
138	Oil and gas field services -----	E6	36	7	.4	10.1	.4	.9	8.8	25.1	12.5	32.1	5.6	.4	10.1
	Summit County -----	E5	32	4	.2	5.0	.2	.4	4.0	54.5	24.8	69.1	10.1	.1	8.4
13	Oil and gas extraction -----	E5	25	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	6.0
131	Crude petroleum and natural gas -----	E5	11	1	.1	1.8	.1	.1	1.1	44.6	(D)	55.9	(D)	(Z)	5.1
138	Oil and gas field services -----	E5	14	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Trumbull County -----	E1	30	3	.3	6.8	.3	.6	5.2	19.0	29.2	44.2	4.1	.2	7.1
13	Oil and gas extraction -----	E1	26	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	5.9
131	Crude petroleum and natural gas -----	E1	9	1	.1	1.1	.1	.1	.9	.7	15.3	15.9	.1	(NA)	(NA)
138	Oil and gas field services -----	E1	17	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.0
	Tuscarawas County -----	E4	108	14	1.0	22.2	.8	1.8	17.7	94.9	55.8	135.8	15.0	.8	47.0
12	Bituminous coal and lignite mining -----	E2	28	9	.5	9.8	.4	.8	8.0	33.7	(D)	55.1	(D)	.3	17.0
121	Bituminous coal and lignite mining -----	E2	28	9	.5	9.8	.4	.8	8.0	33.7	(D)	55.1	(D)	.3	17.0
13	Oil and gas extraction -----	E6	69	5	.5	11.4	.4	.9	8.8	58.7	27.2	75.7	10.2	.3	27.3
131	Crude petroleum and natural gas -----	E3	25	-	.1	2.1	.1	.2	1.7	20.1	8.7	25.8	3.1	.1	17.8
138	Oil and gas field services -----	E7	44	5	.4	9.3	.3	.7	7.1	38.5	18.6	49.9	7.2	.2	9.5
14	Nonmetallic minerals, except fuels -----	E5	11	-	.1	1.0	(Z)	.1	.9	2.6	(D)	5.0	(D)	.1	2.6

See footnotes at end of table.



**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
E <sup>2</sup>															
	<b>Ohio—Con.</b>														
	<b>Vinton County</b> .....	E1	27	4	.8	18.3	.6	1.1	14.3	61.3	25.4	75.1	11.6	.8	35.8
12	Bituminous coal and lignite mining .....	E1	10	4	.7	17.5	.6	1.1	13.6	57.8	(D)	70.0	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	E1	10	4	.7	17.5	.6	1.1	13.6	57.8	(D)	70.0	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	17	-	(Z)	.8	(Z)	.1	.7	3.5	(D)	5.1	(D)	(NA)	(NA)
	<b>Washington County</b> .....	E4	134	11	.9	14.7	.7	1.5	10.6	49.2	46.9	90.1	6.0	.3	17.1
13	Oil and gas extraction .....	E4	127	11	.9	14.4	.7	1.4	10.4	48.2	(D)	88.9	(D)	.2	16.1
131	Crude petroleum and natural gas .....	E4	68	5	.5	7.2	.3	.6	4.2	29.7	(D)	62.1	(D)	.1	7.5
138	Oil and gas field services .....	E3	59	6	.4	7.2	.4	.8	6.2	18.5	12.7	26.8	4.5	.2	8.6
	<b>Wayne County</b> .....	E3	84	3	.6	14.2	.5	1.1	10.1	58.7	29.7	72.4	15.9	.4	22.8
12	Bituminous coal and lignite mining .....	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E3	75	1	.5	10.7	.4	.9	8.4	55.3	(D)	63.8	(D)	.3	19.5
131	Crude petroleum and natural gas .....	E5	27	-	.1	2.3	.1	.2	1.8	28.8	9.3	27.3	10.9	(Z)	4.8
138	Oil and gas field services .....	E2	48	1	.4	8.4	.3	.7	6.6	26.5	(D)	36.6	(D)	.3	14.6
	<b>Wyandot County</b> .....	-	8	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	-	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap .....	-	4	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Ohio</b> .....	2 196	14	-	263	1 575	344	<b>Ohio—Con.</b>						
0 to 4 employees .....	1 199	6	-	84	998	111	<b>Ashland County</b> .....	15	-	-	-	13	2
5 to 9 employees .....	422	1	-	31	284	106	0 to 19 employees .....	14	-	-	-	12	2
10 to 19 employees .....	320	3	-	47	190	80	20 to 99 employees .....	1	-	-	-	1	-
20 to 49 employees .....	166	1	-	46	81	38	<b>Ashtabula County</b> .....	32	-	-	1	29	2
50 to 99 employees .....	46	-	-	27	14	5	0 to 19 employees .....	30	-	-	-	28	2
100 to 249 employees .....	27	2	-	15	6	4	20 to 99 employees .....	2	-	-	1	1	-
250 to 499 employees .....	10	1	-	7	2	-	<b>Athens County</b> .....	31	-	-	-	28	3
500 to 999 employees .....	5	-	-	5	-	-	0 to 19 employees .....	29	-	-	-	27	2
1,000 to 2,499 employees .....	1	-	-	1	-	-	20 to 99 employees .....	1	-	-	-	-	1
<b>Adams County</b> .....	3	1	-	-	1	1	100 to 249 employees .....	1	-	-	-	1	-
0 to 19 employees .....	2	1	-	-	1	-	<b>Auglaize County</b> .....	4	-	-	-	1	3
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	4	-	-	-	1	3
<b>Allen County</b> .....	6	-	-	-	2	4							
0 to 19 employees .....	6	-	-	-	2	4							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Ohio—Con.</b>							<b>Ohio—Con.</b>						
<b>Belmont County</b> .....	<b>38</b>	-	-	<b>26</b>	<b>10</b>	<b>2</b>	<b>Greene County</b> .....	<b>7</b>	-	-	-	<b>1</b>	<b>6</b>
0 to 19 employees.....	21	-	-	9	10	2	0 to 19 employees.....	7	-	-	-	1	6
20 to 99 employees.....	11	-	-	11	-	-	<b>Guernsey County</b> .....	<b>78</b>	-	-	<b>11</b>	<b>67</b>	-
100 to 249 employees.....	2	-	-	2	-	-	0 to 19 employees.....	63	-	-	9	54	-
250 employees or more.....	4	-	-	4	-	-	20 to 99 employees.....	15	-	-	2	13	-
<b>Brown County</b> .....	<b>2</b>	-	-	-	-	<b>2</b>	<b>Hamilton County</b> .....	<b>37</b>	<b>1</b>	-	<b>11</b>	<b>7</b>	<b>18</b>
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	29	1	-	7	7	14
<b>Butler County</b> .....	<b>10</b>	-	-	<b>1</b>	-	<b>9</b>	20 to 99 employees.....	7	-	-	3	-	4
0 to 19 employees.....	9	-	-	1	-	8	100 to 249 employees.....	1	-	-	1	-	-
20 to 99 employees.....	1	-	-	-	-	1	<b>Hancock County</b> .....	<b>9</b>	<b>1</b>	-	-	<b>4</b>	<b>4</b>
<b>Carroll County</b> .....	<b>29</b>	-	-	<b>7</b>	<b>21</b>	<b>1</b>	0 to 19 employees.....	6	-	-	-	<b>3</b>	<b>3</b>
0 to 19 employees.....	28	-	-	6	21	1	20 to 99 employees.....	2	1	-	-	-	1
20 to 99 employees.....	1	-	-	1	-	-	250 employees or more.....	1	-	-	-	1	-
<b>Champaign County</b> .....	<b>3</b>	-	-	-	<b>1</b>	<b>2</b>	<b>Hardin County</b> .....	<b>3</b>	-	-	-	<b>1</b>	<b>2</b>
0 to 19 employees.....	3	-	-	-	1	2	0 to 19 employees.....	3	-	-	-	1	2
<b>Clark County</b> .....	<b>5</b>	-	-	-	-	<b>5</b>	<b>Harrison County</b> .....	<b>38</b>	-	-	<b>23</b>	<b>12</b>	<b>3</b>
0 to 19 employees.....	5	-	-	-	-	5	0 to 19 employees.....	23	-	-	9	11	3
<b>Clermont County</b> .....	<b>2</b>	-	-	-	-	<b>2</b>	20 to 99 employees.....	8	-	-	7	1	-
0 to 19 employees.....	2	-	-	-	-	2	100 to 249 employees.....	4	-	-	4	-	-
<b>Clinton County</b> .....	<b>2</b>	-	-	-	-	<b>2</b>	250 employees or more.....	3	-	-	3	-	-
0 to 19 employees.....	1	-	-	-	-	1	<b>Henry County</b> .....	<b>2</b>	-	-	-	<b>1</b>	<b>1</b>
20 to 99 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	1	1
<b>Columbiana County</b> .....	<b>38</b>	-	-	<b>20</b>	<b>13</b>	<b>5</b>	<b>Highland County</b> .....	<b>5</b>	-	-	-	-	<b>5</b>
0 to 19 employees.....	32	-	-	15	12	5	0 to 19 employees.....	4	-	-	-	-	4
20 to 99 employees.....	6	-	-	5	1	-	20 to 99 employees.....	1	-	-	-	-	1
<b>Coshocton County</b> .....	<b>70</b>	-	-	<b>9</b>	<b>57</b>	<b>4</b>	<b>Hocking County</b> .....	<b>40</b>	-	-	<b>1</b>	<b>37</b>	<b>2</b>
0 to 19 employees.....	66	-	-	6	56	4	0 to 19 employees.....	37	-	-	1	34	2
20 to 99 employees.....	3	-	-	2	1	-	20 to 99 employees.....	3	-	-	-	3	-
100 to 249 employees.....	1	-	-	1	-	-	<b>Holmes County</b> .....	<b>81</b>	-	-	<b>6</b>	<b>71</b>	<b>4</b>
<b>Crawford County</b> .....	<b>4</b>	-	-	-	<b>2</b>	<b>2</b>	0 to 19 employees.....	77	-	-	4	70	3
0 to 19 employees.....	3	-	-	-	2	1	20 to 99 employees.....	3	-	-	1	1	1
20 to 99 employees.....	1	-	-	-	-	1	100 to 249 employees.....	1	-	-	1	-	-
<b>Cuyahoga County</b> .....	<b>45</b>	<b>7</b>	-	<b>5</b>	<b>27</b>	<b>6</b>	<b>Huron County</b> .....	<b>7</b>	-	-	-	<b>3</b>	<b>4</b>
0 to 19 employees.....	34	4	-	3	25	2	0 to 19 employees.....	7	-	-	-	3	4
20 to 99 employees.....	6	-	-	1	2	3	<b>Jackson County</b> .....	<b>14</b>	-	-	<b>8</b>	<b>5</b>	<b>1</b>
100 to 249 employees.....	4	2	-	1	-	1	0 to 19 employees.....	14	-	-	8	5	1
250 employees or more.....	1	1	-	-	-	-	<b>Jefferson County</b> .....	<b>26</b>	-	-	<b>22</b>	<b>3</b>	<b>1</b>
<b>Darke County</b> .....	<b>5</b>	-	-	<b>1</b>	<b>1</b>	<b>3</b>	0 to 19 employees.....	18	-	-	14	3	1
0 to 19 employees.....	5	-	-	1	1	3	20 to 99 employees.....	7	-	-	7	-	-
<b>Delaware County</b> .....	<b>11</b>	-	-	-	<b>7</b>	<b>4</b>	100 to 249 employees.....	1	-	-	1	-	-
0 to 19 employees.....	9	-	-	-	6	3	<b>Knox County</b> .....	<b>63</b>	-	-	-	<b>58</b>	<b>5</b>
20 to 99 employees.....	2	-	-	-	1	1	0 to 19 employees.....	60	-	-	-	56	4
<b>Erie County</b> .....	<b>9</b>	-	-	<b>1</b>	<b>4</b>	<b>4</b>	20 to 99 employees.....	3	-	-	-	2	1
0 to 19 employees.....	7	-	-	1	4	2	<b>Lake County</b> .....	<b>11</b>	-	-	-	<b>4</b>	<b>7</b>
20 to 99 employees.....	2	-	-	-	-	2	0 to 19 employees.....	9	-	-	-	3	6
<b>Fairfield County</b> .....	<b>20</b>	-	-	-	<b>19</b>	<b>1</b>	20 to 99 employees.....	1	-	-	-	1	-
0 to 19 employees.....	19	-	-	-	18	1	100 to 249 employees.....	1	-	-	-	-	1
20 to 99 employees.....	1	-	-	-	1	-	<b>Lawrence County</b> .....	<b>11</b>	-	-	<b>4</b>	<b>6</b>	<b>1</b>
<b>Fayette County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>	0 to 19 employees.....	9	-	-	3	6	-
0 to 19 employees.....	1	-	-	-	-	1	20 to 99 employees.....	2	-	-	1	-	1
<b>Franklin County</b> .....	<b>68</b>	<b>1</b>	-	<b>5</b>	<b>51</b>	<b>11</b>	<b>Licking County</b> .....	<b>86</b>	-	-	<b>1</b>	<b>80</b>	<b>5</b>
0 to 19 employees.....	57	1	-	3	45	8	0 to 19 employees.....	81	-	-	1	76	4
20 to 99 employees.....	11	-	-	2	6	3	20 to 99 employees.....	5	-	-	-	4	1
<b>Fulton County</b> .....	<b>2</b>	-	-	-	<b>1</b>	<b>1</b>	<b>Logan County</b> .....	<b>3</b>	-	-	-	-	<b>3</b>
0 to 19 employees.....	2	-	-	-	1	1	0 to 19 employees.....	3	-	-	-	-	3
<b>Gallia County</b> .....	<b>25</b>	-	-	<b>5</b>	<b>15</b>	<b>5</b>	<b>Lorain County</b> .....	<b>10</b>	-	-	-	<b>8</b>	<b>2</b>
0 to 19 employees.....	19	-	-	2	14	3	0 to 19 employees.....	9	-	-	-	7	2
20 to 99 employees.....	5	-	-	1	1	2	100 to 249 employees.....	1	-	-	-	1	-
100 to 249 employees.....	1	-	-	1	-	-	<b>Lucas County</b> .....	<b>11</b>	-	-	-	<b>2</b>	<b>9</b>
<b>Geauga County</b> .....	<b>13</b>	-	-	-	<b>9</b>	<b>4</b>	0 to 19 employees.....	9	-	-	-	2	7
0 to 19 employees.....	11	-	-	-	9	2	20 to 99 employees.....	2	-	-	-	-	2
20 to 99 employees.....	2	-	-	-	-	2	<b>Mahoning County</b> .....	<b>36</b>	-	-	<b>5</b>	<b>28</b>	<b>3</b>
							0 to 19 employees.....	33	-	-	4	27	2
							20 to 99 employees.....	2	-	-	1	1	-
							100 to 249 employees.....	1	-	-	-	-	1



**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Ohio—Con.</b>							<b>Ohio—Con.</b>						
<b>Marion County</b> .....	8	-	-	-	7	1	<b>Putnam County</b> .....	2	-	-	-	-	2
0 to 19 employees .....	8	-	-	-	7	1	0 to 19 employees .....	2	-	-	-	-	2
<b>Medina County</b> .....	39	-	-	-	37	2	<b>Richland County</b> .....	9	-	-	-	7	2
0 to 19 employees .....	38	-	-	-	36	2	0 to 19 employees .....	9	-	-	-	7	2
20 to 99 employees .....	1	-	-	-	1	-	20 to 99 employees .....	4	-	-	-	-	4
<b>Meigs County</b> .....	21	-	-	4	16	1	<b>Ross County</b> .....	4	-	-	-	-	4
0 to 19 employees .....	17	-	-	2	15	-	0 to 19 employees .....	3	-	-	-	-	3
20 to 99 employees .....	3	-	-	1	1	1	20 to 99 employees .....	1	-	-	-	-	1
250 employees or more .....	1	-	-	1	-	-	<b>Sandusky County</b> .....	4	-	-	-	2	2
<b>Mercer County</b> .....	4	-	-	-	2	2	0 to 19 employees .....	4	-	-	-	2	2
0 to 19 employees .....	3	-	-	-	2	1	<b>Scioto County</b> .....	8	-	-	2	3	3
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	7	-	-	1	3	3
<b>Miami County</b> .....	6	-	-	-	-	6	20 to 99 employees .....	1	-	-	1	-	-
0 to 19 employees .....	5	-	-	-	-	5	<b>Seneca County</b> .....	5	-	-	-	1	4
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	4	-	-	-	1	3
<b>Monroe County</b> .....	47	-	-	5	41	1	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees .....	44	-	-	3	40	1	<b>Shelby County</b> .....	4	-	-	-	-	4
20 to 99 employees .....	1	-	-	1	1	-	0 to 19 employees .....	3	-	-	-	-	3
250 employees or more .....	2	-	-	2	-	-	20 to 99 employees .....	1	-	-	-	-	1
<b>Montgomery County</b> .....	21	2	-	3	5	11	<b>Stark County</b> .....	111	-	-	12	87	12
0 to 19 employees .....	18	2	-	1	5	10	0 to 19 employees .....	95	-	-	8	76	11
20 to 99 employees .....	2	-	-	1	1	1	20 to 99 employees .....	16	-	-	4	11	1
100 to 249 employees .....	1	-	-	1	-	-	<b>Summit County</b> .....	32	-	-	1	25	6
<b>Morgan County</b> .....	51	-	-	1	47	3	0 to 19 employees .....	28	-	-	1	21	6
0 to 19 employees .....	48	-	-	-	45	3	20 to 99 employees .....	4	-	-	-	4	-
20 to 99 employees .....	2	-	-	-	2	-	<b>Trumbull County</b> .....	30	1	-	-	26	3
250 employees or more .....	1	-	-	1	-	-	0 to 19 employees .....	27	1	-	-	23	3
<b>Morrow County</b> .....	17	-	-	-	15	2	20 to 99 employees .....	3	-	-	-	3	-
0 to 19 employees .....	16	-	-	-	14	2	<b>Tuscarawas County</b> .....	108	-	-	28	69	11
20 to 99 employees .....	1	-	-	-	1	-	0 to 19 employees .....	94	-	-	19	64	11
<b>Muskingum County</b> .....	126	-	-	10	108	8	20 to 99 employees .....	13	-	-	9	4	-
0 to 19 employees .....	105	-	-	4	94	7	100 to 249 employees .....	1	-	-	-	1	-
20 to 99 employees .....	17	-	-	4	12	1	<b>Union County</b> .....	3	-	-	-	-	3
100 to 249 employees .....	4	-	-	2	2	-	0 to 19 employees .....	3	-	-	-	-	3
<b>Noble County</b> .....	37	-	-	1	35	1	<b>Van Wert County</b> .....	2	-	-	-	1	1
0 to 19 employees .....	36	-	-	-	35	1	0 to 19 employees .....	2	-	-	-	1	1
20 to 99 employees .....	1	-	-	1	-	-	<b>Vinton County</b> .....	27	-	-	10	17	-
<b>Ottawa County</b> .....	5	-	-	-	1	4	0 to 19 employees .....	23	-	-	6	17	-
0 to 19 employees .....	4	-	-	-	1	3	20 to 99 employees .....	3	-	-	3	-	-
20 to 99 employees .....	1	-	-	-	-	1	250 employees or more .....	1	-	-	1	-	-
<b>Paulding County</b> .....	3	-	-	-	2	1	<b>Warren County</b> .....	8	-	-	-	1	7
0 to 19 employees .....	3	-	-	-	2	1	0 to 19 employees .....	8	-	-	-	1	7
<b>Perry County</b> .....	70	-	-	6	62	2	<b>Washington County</b> .....	134	-	-	1	127	6
0 to 19 employees .....	67	-	-	4	61	2	0 to 19 employees .....	123	-	-	1	116	6
20 to 99 employees .....	2	-	-	1	1	-	20 to 99 employees .....	10	-	-	-	10	-
250 employees or more .....	1	-	-	1	-	-	250 employees or more .....	1	-	-	-	1	-
<b>Pickaway County</b> .....	2	-	-	-	-	2	<b>Wayne County</b> .....	84	-	-	5	75	4
0 to 19 employees .....	1	-	-	-	-	1	0 to 19 employees .....	81	-	-	4	74	3
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	1	-	1
<b>Pike County</b> .....	5	-	-	1	1	3	100 to 249 employees .....	1	-	-	-	1	-
0 to 19 employees .....	5	-	-	1	1	3	<b>Williams County</b> .....	4	-	-	-	-	4
<b>Portage County</b> .....	67	-	-	-	43	24	0 to 19 employees .....	4	-	-	-	-	4
0 to 19 employees .....	64	-	-	-	40	24	<b>Wood County</b> .....	7	-	-	-	-	7
20 to 99 employees .....	3	-	-	-	3	-	0 to 19 employees .....	7	-	-	-	-	7
<b>Preble County</b> .....	2	-	-	-	-	2	<b>Wyandot County</b> .....	8	-	-	-	2	6
0 to 19 employees .....	2	-	-	-	-	2	0 to 19 employees .....	6	-	-	-	2	4
							20 to 99 employees .....	1	-	-	-	-	1
							100 to 249 employees .....	1	-	-	-	-	1



# Wisconsin

## CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

---

	Page
Summary of Findings .....	2

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### TABLES

#### HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years .....	3
---	---

#### STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977 .....	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982 .....	3
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982 .....	4
4a. Summary Statistics for the State: 1982 .....	6
4b. Inventories for the State: End of 1981 and 1982 .....	6

#### COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977 .....	6
--	---

#### EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982 .....	7
---	---

# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 208 establishments classified in mineral industries in Wisconsin was \$132 million in 1982 compared to \$128 million in 1977. Value added by mining amounted to \$86 million in 1982, and payroll in mining amounted to \$38 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons to prior years,

users should take into consideration the inflation that has occurred.

Mineral industries employment in Wisconsin was 1.9 thousand in 1982 a decrease of 27 percent from 1977. The nonmetallic minerals, except fuels industry led all other mineral industries in the State, accounting for 89 percent of the State's mineral industries employment.

**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 <sup>1</sup>	208	24	1.9	38.4	1.4	2.7	27.2	85.8	56.2	131.5	10.4
1977 <sup>1</sup>	217	30	2.6	39.5	2.1	4.4	30.0	87.1	54.4	128.1	13.4
1972 <sup>1</sup>	214	27	2.5	25.7	1.9	4.0	17.6	63.5	28.7	84.5	7.7
1967 <sup>1</sup>	236	25	2.4	16.8	1.8	4.0	12.7	37.8	20.0	50.3	7.5
1963	346	27	3.1	17.0	2.5	5.0	13.2	37.5	22.6	54.7	5.4
1958	295	37	3.7	17.7	3.2	6.3	14.8	31.6	17.7	44.9	4.5

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)
		E <sup>1</sup>	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	All mineral industries ----	E2	208	24	1.9	38.4	1.4	2.7	27.2	85.8	56.2	131.5	10.4	2.6
10	Metal mining-----	-	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
1011	Iron ores-----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
14	Nonmetallic minerals, except fuels-----	E2	176	22	1.7	32.5	1.2	2.4	24.0	76.6	44.8	112.3	9.1	EE
142	Crushed and broken stone, including riprap-----	E2	69	12	.8	16.5	.6	1.3	12.9	44.3	26.4	65.6	5.1	1.2
1422	Crushed and broken limestone-----	E3	50	9	.6	12.7	.5	1.0	9.8	33.4	18.6	48.2	3.9	.9
1429	Crushed and broken stone, n.e.c.-----	E2	12	3	.1	3.4	.1	.2	2.7	9.7	7.1	15.7	1.0	BB
144	Sand and gravel-----	E2	84	9	.8	13.9	.5	1.0	9.4	28.7	15.9	40.8	3.8	.6
1442	Construction sand and gravel-----	E3	78	6	.6	10.9	.4	.7	7.7	21.6	(D)	30.3	(D)	.5
1446	Industrial sand-----	-	6	3	.2	3.0	.1	.2	1.7	7.1	(D)	10.5	(D)	.1

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures-----	12	.2	1.9	2.7	(X)
Sand and gravel-----	7	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.



Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments											Non-producing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>	
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number..	208	205	23	4	14	5	114	-	113	1	-	68	3
	Employees.....1,000..	1.9	(D)	.1	(Z)	.1	(Z)	1.5	-	(D)	(D)	-	(D)	(D)
	Value added in mining.....mil. dol..	85.8	(D)	5.4	.2	3.2	2.1	70.1	-	(D)	(D)	-	(D)	(D)
<b>10</b>	<b>METAL MINING</b>													
	Establishments.....number..	6	5	1	1	-	-	1	-	1	-	-	3	1
	Employees.....1,000..	(D)	(D)	(Z)	(Z)	-	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining.....mil. dol..	(D)	(D)	(Z)	(Z)	-	-	(D)	-	(D)	-	-	(D)	(D)
<b>101</b>	<b>Iron ores</b>													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
<b>102</b>	<b>Copper ores</b>													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.....mil. dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
<b>103</b>	<b>Lead and zinc ores</b>													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	(Z)	-	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol..	(Z)	(Z)	(Z)	(Z)	-	-	-	-	-	-	-	-	-
<b>108</b>	<b>Metal mining services</b>													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>109</b>	<b>Miscellaneous metal ores</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	-	-	-	-	-	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
<b>12</b>	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number..	4	4	3	3	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(Z)	(Z)	(Z)	(Z)	-	-	-	-	-	-	-	(Z)	-
	Value added in mining.....mil. dol..	.1	.1	.1	.1	-	-	-	-	-	-	-	-	-
<b>121</b>	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number..	4	4	3	3	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(Z)	(Z)	(Z)	(Z)	-	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol..	.1	.1	.1	.1	-	-	-	-	-	-	-	(Z)	-

See footnotes at end of table.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants		Undistri- buted <sup>1</sup>
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
13	<b>OIL AND GAS EXTRACTION</b>													
	Establishments..... number..	22	22	5	-	-	5	-	-	-	-	-	17	-
	Employees.....1,000..	(D)	(D)	(Z)	-	-	(Z)	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	2.1	-	-	2.1	-	-	-	-	-	(D)	-
131	<b>Crude petroleum and natural gas</b>													
	Establishments..... number..	5	5	5	-	-	5	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	-	(Z)	-	-	-	-	-	-	-
	Value added in mining..... mil. dol..	2.1	2.1	2.1	-	-	2.1	-	-	-	-	-	-	-
138	<b>Oil and gas field services</b>													
	Establishments..... number..	17	17	-	-	-	-	-	-	-	-	-	17	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments..... number..	176	174	14	-	14	-	113	-	112	1	-	47	2
	Employees.....1,000..	1.7	1.7	.1	-	.1	-	(D)	-	(D)	(D)	-	(D)	(Z)
	Value added in mining..... mil. dol..	76.6	76.6	3.2	-	3.2	-	(D)	-	(D)	(D)	-	(D)	-
141	<b>Dimension stone</b>													
	Establishments..... number..	11	11	8	-	8	-	3	-	3	-	-	-	-
	Employees.....1,000..	.1	.1	(Z)	-	(Z)	-	(Z)	-	(Z)	-	-	-	-
	Value added in mining..... mil. dol..	2.3	2.3	1.4	-	1.4	-	.9	-	.9	-	-	-	-
142	<b>Crushed and broken stone, including riprap</b>													
	Establishments..... number..	69	68	3	-	3	-	65	-	65	-	-	-	1
	Employees.....1,000..	.8	.8	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(Z)
	Value added in mining..... mil. dol..	44.3	44.3	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
144	<b>Sand and gravel</b>													
	Establishments..... number..	84	83	3	-	3	-	43	-	43	-	-	37	1
	Employees.....1,000..	.8	.8	(D)	-	(D)	-	(D)	-	(D)	-	-	.2	(Z)
	Value added in mining..... mil. dol..	28.7	28.7	(D)	-	(D)	-	(D)	-	(D)	-	-	7.9	-
148	<b>Nonmetallic minerals services</b>													
	Establishments..... number..	10	10	-	-	-	-	-	-	-	-	-	10	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments..... number..	2	2	-	-	-	-	2	-	1	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number ..	208	Cost of supplies ----- mil. dol. ..	56.2
With 0 to 19 employees ----- do. ....	184	Supplies used, minerals received, and purchased machinery installed ----- do. ....	32.4
With 20 to 99 employees ----- do. ....	23	Resales ----- do. ....	1.2
With 100 employees or more ----- do. ....	1	Purchased fuels consumed ----- do. ....	11.0
All employees:		Purchased electric energy:	
Average for year ----- 1,000 ..	1.9	Quantity ----- mil. kWh. ....	116.6
Payroll for year ----- mil. dol. ....	38.4	Cost ----- mil. dol. ....	5.5
		Electric energy generated less sold ----- mil. kWh. ....	(D)
		Contract work ----- mil. dol. ....	6.1
Production, development, and exploration workers:		Cost of purchased communication services ----- do. ....	.3
Average for year ----- 1,000 ..	1.4	Value of shipments and receipts ----- do. ....	131.5
March ----- do. ....	1.3	Value of resales ----- do. ....	1.3
May ----- do. ....	1.3	Capital expenditures during year (except land and mineral rights) ----- do. ....	10.4
August ----- do. ....	1.5	New capital expenditures during year ----- do. ....	7.1
November ----- do. ....	1.3	Buildings and other structures, except land ----- do. ....	.4
Hours ----- millions ..	2.7	Machinery and equipment ----- do. ....	6.7
January to March ----- do. ....	.6	Used capital expenditures during year ----- do. ....	2.1
April to June ----- do. ....	.7	Buildings and other structures, except land ----- do. ....	(2)
July to September ----- do. ....	.8	Machinery and equipment ----- do. ....	2.1
October to December ----- do. ....	.6	Mineral exploration and development <sup>1</sup> ----- do. ....	1.2
Wages ----- mil. dol. ....	27.2	Rental payments during year ----- do. ....	1.0
Supplemental labor costs not included in payroll ----- do. ....	10.0	Buildings and other structures, except land ----- do. ....	.1
Legally required expenditures, including Social Security contributions ----- do. ....	4.8	Machinery and equipment ----- do. ....	.9
Payments for voluntary programs ----- do. ....	5.3	Expensed mineral exploration, development, land, and rights <sup>1 2</sup> ----- do. ....	9.3
Value added by mining ----- do. ....	85.8		

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total inventories <sup>1</sup> -----	26.1	25.9
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> -----	3.7	2.9
LIFO reserve -----	.5	.5
LIFO value -----	3.2	2.5
Not subject to LIFO costing -----	13.4	13.9
Valuation method not reported <sup>3</sup> -----	8.9	8.9
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> -----	.1	.1

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)	
		E <sup>2</sup>	Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
14	Wisconsin -----	E2	208	24	1.9	38.4	1.4	2.7	27.2	85.8	56.2	131.5	10.4	2.6	87.1
	Dane County -----	E6	16	2	.2	3.2	.1	.2	2.1	6.3	3.7	9.1	.9	.1	4.8
	Nonmetallic minerals, except fuels-----	E6	12	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.8
	Dodge County -----	E5	4	2	.1	1.7	.1	.1	1.2	3.3	2.1	5.0	.3	(NA)	(NA)
14	Fond du Lac County -----	E3	10	1	.2	2.8	.1	.2	1.6	3.7	2.3	5.5	.6	(NA)	(NA)
	Nonmetallic minerals, except fuels-----	E3	10	1	.2	2.8	.1	.2	1.6	3.7	2.3	5.5	.6	(NA)	(NA)
	Jackson County -----	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining -----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
101	Iron ores -----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.



Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
14	Wisconsin—Con. Juneau County -----	E9	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Nonmetallic minerals, except fuels -----	E9	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E9	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Marinette County -----	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Nonmetallic minerals, except fuels -----	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Sauk County -----	E1	6	2	.1	1.9	.1	.2	1.6	4.0	(D)	7.8	(D)	.3	8.5
	Nonmetallic minerals, except fuels -----	E1	6	2	.1	1.9	.1	.2	1.6	4.0	(D)	7.8	(D)	.3	8.5
142	Crushed and broken stone, including riprap -----	E1	5	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Waukesha County -----	E1	27	2	.2	5.2	.1	.3	3.6	14.6	(D)	21.0	(D)	.2	9.9
	Nonmetallic minerals, except fuels -----	E1	25	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E1	9	2	.1	2.9	.1	.2	1.8	10.1	(D)	14.1	(D)	.1	5.3
144	Sand and gravel -----	E1	14	-	.1	1.9	.1	.1	1.5	3.6	(D)	5.3	(D)	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Wisconsin-----	208	6	-	4	22	176	Wisconsin—Con.						
0 to 4 employees-----	111	3	-	4	21	83	Calumet County -----	4	-	-	-	-	4
5 to 9 employees-----	40	-	-	-	-	40	0 to 19 employees-----	4	-	-	-	-	4
10 to 19 employees-----	33	1	-	-	1	31	Clark County -----	2	-	-	-	-	2
20 to 49 employees-----	17	1	-	-	-	16	0 to 19 employees-----	2	-	-	-	-	2
50 to 99 employees-----	6	-	-	-	-	6	Columbia County -----	5	-	-	-	2	3
100 to 249 employees-----	1	1	-	-	-	-	0 to 19 employees-----	4	-	-	-	2	2
Adams County -----	3	-	-	-	3	-	20 to 99 employees-----	1	-	-	-	-	1
0 to 19 employees-----	3	-	-	-	3	-	Crawford County -----	1	-	-	-	-	1
Barron County -----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	1
0 to 19 employees-----	1	-	-	-	-	1	Dane County -----	16	1	-	2	1	12
Bayfield County -----	1	-	-	1	-	-	0 to 19 employees-----	14	1	-	2	1	10
0 to 19 employees-----	1	-	-	1	-	-	20 to 99 employees-----	2	-	-	-	-	2
Brown County -----	4	-	-	-	1	3	Dodge County -----	4	-	-	1	-	3
0 to 19 employees-----	3	-	-	-	1	2	0 to 19 employees-----	2	-	-	1	-	1
20 to 99 employees-----	1	-	-	-	-	1	20 to 99 employees-----	2	-	-	-	-	2
Buffalo County -----	1	-	-	-	-	1	Door County -----	3	-	-	-	2	1
0 to 19 employees-----	1	-	-	-	-	1	0 to 19 employees-----	2	-	-	-	2	-

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Wisconsin—Con.</b>							<b>Wisconsin—Con.</b>						
<b>Door County—Con.</b>							<b>Oconto County</b> .....	1	-	-	-	-	1
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	1	-	-	-	-	1
<b>Douglas County</b> .....	2	-	-	-	-	2	<b>Oneida County</b> .....	2	1	-	-	-	1
0 to 19 employees .....	2	-	-	-	-	2	20 to 99 employees .....	2	1	-	-	-	1
<b>Dunn County</b> .....	1	-	-	-	1	-	<b>Outagamie County</b> .....	5	-	-	-	-	5
0 to 19 employees .....	1	-	-	-	1	-	0 to 19 employees .....	5	-	-	-	-	5
<b>Eau Claire County</b> .....	2	-	-	-	-	2	<b>Pierce County</b> .....	1	-	-	-	-	1
0 to 19 employees .....	2	-	-	-	-	2	0 to 19 employees .....	1	-	-	-	-	1
<b>Fond du Lac County</b> .....	10	-	-	-	-	10	<b>Polk County</b> .....	3	-	-	-	1	2
0 to 19 employees .....	9	-	-	-	-	9	0 to 19 employees .....	2	-	-	-	1	1
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Grant County</b> .....	5	-	-	-	-	5	<b>Portage County</b> .....	3	-	-	-	-	3
0 to 19 employees .....	5	-	-	-	-	5	0 to 19 employees .....	2	-	-	-	-	2
<b>Green County</b> .....	3	-	-	-	1	2	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees .....	3	-	-	-	1	2	<b>Price County</b> .....	2	-	-	-	1	1
<b>Green Lake County</b> .....	3	-	-	-	-	3	0 to 19 employees .....	2	-	-	-	1	1
0 to 19 employees .....	3	-	-	-	-	3	<b>Racine County</b> .....	5	1	-	-	1	3
<b>Iowa County</b> .....	1	-	-	-	-	1	0 to 19 employees .....	4	1	-	-	1	2
0 to 19 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Jackson County</b> .....	3	1	-	-	-	2	<b>Rock County</b> .....	7	-	-	-	-	7
0 to 19 employees .....	1	-	-	-	-	1	0 to 19 employees .....	6	-	-	-	-	6
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
100 to 249 employees .....	1	1	-	-	-	-	<b>Rusk County</b> .....	4	2	-	-	-	2
<b>Jefferson County</b> .....	5	-	-	-	1	4	0 to 19 employees .....	4	2	-	-	-	2
0 to 19 employees .....	5	-	-	-	1	4	<b>St. Croix County</b> .....	1	-	-	-	-	1
<b>Juneau County</b> .....	2	-	-	-	-	2	0 to 19 employees .....	1	-	-	-	-	1
0 to 19 employees .....	1	-	-	-	-	1	<b>Sauk County</b> .....	6	-	-	-	-	6
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	4	-	-	-	-	4
<b>Kenosha County</b> .....	2	-	-	-	1	1	20 to 99 employees .....	2	-	-	-	-	2
0 to 19 employees .....	2	-	-	-	1	1	<b>Shawano County</b> .....	2	-	-	-	-	2
<b>Kewaunee County</b> .....	1	-	-	-	-	1	0 to 19 employees .....	2	-	-	-	-	2
0 to 19 employees .....	1	-	-	-	-	1	<b>Sheboygan County</b> .....	2	-	-	-	1	1
<b>La Crosse County</b> .....	1	-	-	-	1	-	0 to 19 employees .....	2	-	-	-	1	1
0 to 19 employees .....	1	-	-	-	1	-	<b>Trempealeau County</b> .....	1	-	-	-	-	1
<b>Lafayette County</b> .....	1	-	-	-	-	1	0 to 19 employees .....	1	-	-	-	-	1
0 to 19 employees .....	1	-	-	-	-	1	<b>Vernon County</b> .....	2	-	-	-	-	2
<b>Langlade County</b> .....	2	-	-	-	1	1	0 to 19 employees .....	2	-	-	-	-	2
0 to 19 employees .....	2	-	-	-	1	1	<b>Walworth County</b> .....	3	-	-	-	-	3
<b>Lincoln County</b> .....	4	-	-	-	-	4	0 to 19 employees .....	3	-	-	-	-	3
0 to 19 employees .....	3	-	-	-	-	3	<b>Washington County</b> .....	7	-	-	-	1	6
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	7	-	-	-	1	6
<b>Manitowoc County</b> .....	3	-	-	-	-	3	<b>Waukesha County</b> .....	27	-	-	-	2	25
0 to 19 employees .....	3	-	-	-	-	3	0 to 19 employees .....	25	-	-	-	2	23
<b>Marathon County</b> .....	9	-	-	-	-	9	20 to 99 employees .....	2	-	-	-	-	2
0 to 19 employees .....	9	-	-	-	-	9	<b>Waupaca County</b> .....	2	-	-	-	-	2
<b>Marinette County</b> .....	4	-	-	-	-	4	0 to 19 employees .....	2	-	-	-	-	2
0 to 19 employees .....	3	-	-	-	-	3	<b>Waushara County</b> .....	2	-	-	-	-	2
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	2	-	-	-	-	2
<b>Milwaukee County</b> .....	7	-	-	-	-	7	<b>Winnebago County</b> .....	4	-	-	-	-	4
0 to 19 employees .....	7	-	-	-	-	7	0 to 19 employees .....	3	-	-	-	-	3
							20 to 99 employees .....	1	-	-	-	-	1



# APPENDIX A.

## Explanation of Terms

**Employment and related items**—The report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year and for other employees as of the payroll period which included the 12th of March.

**All employees**—This item includes all full-time and part-time employees on the payrolls of mining establishments for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

**Production, development, and exploration workers**—This category includes employees (up through the working supervisor level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and guard services, auxiliary production for use at establishments (such as power plant), record keeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and supervisors who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and persons engaged by them and paid out of the total amount received by these miners. In addition, other employees at the establishment but not on its payroll are included if paid directly through its own employees, such as superintendents and supervisors. The payments received by these types of employees are included as part of the establishments payroll. Supervisory employees above the working supervisor level are excluded from this category.

**All other employees**—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working supervisor level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical and routine office functions, executive, purchasing, financing, legal,

personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

**Separately operated auxiliary establishments employees**—This item includes employment at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment during the payroll period which included March 12. Establishments were classified on the basis of the industry or principal industry served. Employees at an office located at or near the mining establishment are usually included in the mine report.

**All employees, average for year**—The 1982 census report form requested employment figures for production, development, and exploration workers for four selected pay periods (mid-March, May, August, and November). For all other employees, only a mid-March figure was requested. The annual average is an average of the four monthly figures for production, development, and exploration workers plus the March figure for all other employees. This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods closely approximates, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods.

**Payroll**—This term includes all forms of compensation such as salaries, wages, commissions, payments received on a ton, car, or yard basis, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern, and payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages. As in the case of employment and establishment figures, the annual payrolls of separate auxiliary establishments of multiestablishment companies are included in the totals for individual industries and for States. Respondents were told that in reporting they could follow the definition of payroll used for calculating the Federal withholding tax.



**Production, development, and exploration worker hours**—This item represents all hours that production, development, and exploration workers worked, both on active days during which there was production or development work and on inactive days when only security guards, inspectors, repairpersons, and other maintenance persons were on duty. It includes all hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Included are actual overtime hours, not straight-time equivalent hours. Hours of working proprietors or partners are excluded.

**Supplemental Labor Costs**—This item represents employer's cost for fringe benefits not included in payrolls.

**Legally required expenditures, including social security contributions**—This cost includes employer contributions for all programs required under Federal and State legislation, such as Federal Old Age and Survivors' Insurance, unemployment compensation, and worker's compensation. Also included are legally required State temporary disability payments.

**Payments for voluntary programs**—Included in this cost are payments resulting from union negotiated contracts and all employer payments of insurance premiums on hospital and medical plans, life insurance premiums, and premiums on supplementary accident and sickness insurance. For programs supported by joint employer-employee contributions, only the employer payments are included. Also included are payments or allocations on all pension plans regardless of methods of administration, supplemental unemployment compensation plans, welfare plans, stock purchase plans in which the employer payment is not subject to withholding tax, and deferred profit sharing plans.

**Value added by mining**—This measure of mining activity is derived by subtracting the cost of supplies used, minerals received for preparation, purchased machinery installed, purchased fuel, purchased electricity, and contract work from the sum of the value of shipments (mining products plus receipts for services rendered) and total capital expenditures. This statistic avoids the duplication in value of shipments and receipts which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

**Cost of supplies used, purchased machinery installed, etc.**—Besides supplies used and purchased machinery installed, this cost includes fuels and electric energy used and contract work done by others for each establishment. It includes charges to both the current and capital accounts. It also includes the cost of items used during 1982 whether they were purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy, both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year.

Freight charges and other direct charges incurred by the establishment in acquiring the item are included. Companies whose records did not show actual amounts used were asked to approximate use by adding purchases (or receipts) during the year to opening inventory and subtracting closing inventory. Separate figures were requested for: (1) selected supplies used, minerals received for preparation, and purchased machinery installed; (2) electric energy purchased; (3) purchased fuels used for heat, power, or the generation of electricity; (4) contract work done by others; and (5) products bought and resold in the same condition. Supplies and equipment used in mine development, plant expansion, and capitalized repairs, which are chargeable to fixed assets accounts, are included in this item, as are supplies furnished without charge to contractors for use at the mining operation and supplies sold to employees for use at the establishment. Excluded are such costs as advertising, insurance, telephone, and research and consulting services of other establishments; or such overhead costs as depreciation charges, rent, interest, and royalties.

**Value of shipments and receipts**—The amounts shown as value of shipments and receipts for each industry are the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges. "Shipments" include all products physically shipped from the establishment during 1982, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1982. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the estimated value, not merely the cost of producing the items. Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value, i.e., to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

For all establishments classified in an industry, value of shipments and receipts includes: (1) the value of all "primary" products of the industry, (2) the value of "secondary" products which are primary to other industries, (3) the receipts for contract work done for others, except custom milling, and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products.

Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale.

**Capital expenditures**—This item covers expenditures made during the year for development and exploration of mineral properties, for new construction, and for purchased machinery chargeable to fixed assets accounts of the mineral establishment. They are the type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1982 were to be determined as "additions completed during the year plus construction in progress at the end of the year minus construction in progress at the beginning of the year." Reported capital expenditures were to include work done on contract, as well as by the mine forces.

Expenditures for machinery and equipment were to include those made for replacement purposes, as well as those for additions to capacity. Excluded from these expenditures were costs of maintenance and repairs charged as current operating expense and expenditures for land and mineral rights.

Whenever applicable, separate figures were provided for expenditures for development and exploration of mineral property, construction of preparation plants and other construction, new machinery and equipment, used plant, and used equipment acquired from others.

**Rental payments**— This item consists of rental payments made to other companies for use of such depreciable assets as buildings, other structures, machinery, and equipment. It does not include payments made to the parent company or another subsidiary of the parent company for the use of buildings and equipment owned by the parent company or its subsidiary. The value of such company-owned assets is included in the gross value of depreciable assets.

**Current account expenditures**— This item includes all expenses for mineral properties, exploration, and development charged to current accounts. This includes all supplies, machinery, equipment, parts, fuels, power, etc., used for development or exploration and charged to current operating expenses. Also included are royalty payments, acquisition costs for mineral land and rights which were not capitalized, and the cost of maintenance and repairs associated with exploration or development activity and charged to current accounts.

**Inventories**— This item includes inventories of mined or quarried products, and supplies, parts, fuels, etc., at the beginning and end of the year. Beginning in the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method. The inventory figures for 1982, therefore, will not be comparable to prior census data because of the change in reporting instructions.





# **APPENDIX B.**

## **Geographic Divisions and States**

### **NEW ENGLAND STATES**

Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont  
North and Mid-Atlantic Offshore

### **MIDDLE ATLANTIC STATES**

New Jersey  
New York  
Pennsylvania

### **EAST NORTH CENTRAL STATES**

Illinois  
Indiana  
Michigan  
Ohio  
Wisconsin

### **WEST NORTH CENTRAL STATES**

Iowa  
Kansas  
Minnesota  
Missouri  
Nebraska  
North Dakota  
South Dakota

### **SOUTH ATLANTIC STATES**

Delaware  
District of Columbia  
Florida  
Georgia  
Maryland

### **SOUTH ATLANTIC STATES—Con.**

North Carolina  
South Carolina  
Virginia  
West Virginia  
South Atlantic Offshore

### **EAST SOUTH CENTRAL STATES**

Alabama  
Kentucky  
Mississippi  
Tennessee

### **WEST SOUTH CENTRAL STATES**

Arkansas  
Louisiana  
Oklahoma  
Texas  
Northern Gulf of Mexico Offshore

### **MOUNTAIN STATES**

Arizona  
Colorado  
Idaho  
Montana  
Nevada  
New Mexico  
Utah  
Wyoming

### **PACIFIC STATES**

Alaska  
California  
Hawaii  
Oregon  
Washington  
Pacific Offshore



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- ☐ Guide to the 1982 Economic Censuses and Related Statistics

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# PUBLICATION PROGRAM

## 1982 CENSUS OF MINERAL INDUSTRIES

Publications of the 1982 Census of Mineral Industries, containing data on establishments primarily engaged in the extraction of minerals, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

### Preliminary Reports

Preliminary data from the 1982 census have been issued in 12 industry and 2 summary reports covering all of the 42 mineral industries. These reports are superseded by more detailed final reports.

### Final Reports

Final detailed statistics are issued in separate paperbound reports.

### Industry series—12 reports (MIC82-I-10A to -14E)

Each of the 12 reports provides information for an industry or a group of related industries (e.g., clay, ceramic, and refractory minerals). Final figures for the United States are shown for each of 42 mineral industries on quantity and value of products shipped and supplies used; inventories; quantity and cost of fuels and electric energy purchased, quantity of fuel stocks, and the quantities of fuels produced and consumed; capital expenditures; assets; rents; employment; depreciation, amortization and depletion; payrolls; hours worked; cost of purchased machinery; value added by mining; mineral development and exploration costs; number of establishments; and number of companies. Comparative statistics for earlier years are included. Industry statistics are shown by State, type of operation, and size of establishment.

### Geographic area series—9 reports (MIC82-A-1 to -9)

A separate report for each of the nine geographic divisions presents statistics for individual States for two- and three-digit industry groups by type of operation and by county. Also, data are shown for value of shipments, value added by mining, employment, payroll, hours worked, capital expenditures, cost of supplies, etc., purchased machinery

installed, and number of mining establishments, with comparative 1977 data on employment and value added by mining.

### Subject series—7 reports (MIC82-S-1 to -7)

Each of the 7 reports contains detailed statistics for an individual subject, such as water use in mineral industries; gross value of depreciable assets, capital expenditures, retirements, depreciation and rental payments; size of establishments; type of operation; fuels and electric energy consumed; type of organization; and a general National-level summary.

### Final Report Volume

Final paperbound reports are subsequently assembled and reissued in one clothbound volume.

### Microfiche

All published data are also available on microfiche.

### Availability of Public Use Computer Tapes

Public-use computer tapes for the census of mineral industries are not included as part of the economic census publication program. Special tabulations can be made available on computer tape on a contract, cost-reimbursable basis. Contact Industry Division, Bureau of the Census, Washington, D.C. 20233 for more information.

## OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

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